

Initial Environmental Examination

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March 2021

India: Karnataka Integrated Urban Water Management Investment Program (Tranche 2) – Strengthening Distribution System for Implementing 24x7 Water Supply to Mangalore City Corporation

Package No: 02MNG01

Part 2 of 2 (pages 209-357)

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Translation

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LND-PDR/288/77-78

Date: 23-12-2017

Proceedings of Assistant Commissioner Mangalore Sub Division Mangalore

Subject: Reservation 0.35 Acre of land in survey Number 169/1A1P1 in Panambur Village of Mangalore Taluk DK District for formation OHT

Reference: Proposal Number LND.PDR40/2017-18 Dated: 30.11.2017 From Tahsildar Mangalore.

As per KLR Act 1964 Section 71, 0.35 acre of land in Survey Number 169/1A1P1 in Panambur Village of Mangalore Taluk has been proposed for reservation by Tahsildar Mangalore to Mangalore City Corporation (MCC) Mangalore for construction of Over Head Tank (OHT).

The proposed land is not reserved for Forest, Road, or grazing ground, DC reserve or Poramboke land. It is purely Govt. land and public notification is published. No objection was received or no Form no. 50, 53,94/C and 94/CC application received for the particular land and no application is pending for enquiry. It is not included in the list of Deemed Forest lands and free from any encroachment and no the-growth and the free from any objections and also not Kumki Land.

Hence reservation proposal has been recommended by Tahsildar Mangalore as per Sec. 71 of KLR Act 1964 in Survey Number 169/1A1P1 Extent 0.35 Acre to Mangalore City Corporation (MCC) for the construction of Over Head Tank in Panambur Village Mangalore Taluk.

Considering the above recommendations 0.35 acres of land in Survey Number 169/1A1P1 in Panambur village Mangalore Taluk has been reserved under following conditions.

ORDER

As per Section 71 of KLR Act 1964, 0.35 acre of land in Panambur Village of Mangalore Taluk has been reserved for the commission Mangalore City Corporation (MCC) for construction of OHT.

CONDITIONS

- The Land must be used for OHT purpose only and not be utilized for other purpose and not disposed.
- The land must not be used for commercial purpose.

- If any tree growth in the land must be disposed by the forest department.
- The Reserved Land should not to be infiltrated for any other reason
- The land must utilized within 2 years for same purpose.
- The Reservation of land is finding to court orders in due course.

If any one of conditions is violated the order would be cancelled the land would be taken back by the Government/by Tahsildar and no compensation will be paid to the improvements made on the land and no same will be entered in RTC

AC RenukaPrasad

Assistant Commissioner

Mangalore

Copy: 1. DC DK for information
2. Commissioner MCC Mangalore, with sketch for needful action
3. Tahsildar, Mangalore
4. AT Case worker to entry on RTC of the Order

Appendix 11 DETAILS OF ASSOCIATED FACILITIES

1. Associated facilities.¹⁶ to the Mangalore Water Supply Project include:

- (i) The bulk water components¹⁷ under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) project include: (i) upgrading the existing 10 MLD jack well to 20 MLD at Thumbe and replacing all electro mechanical components; (ii) laying raw water main (1.14 km length 610 mm diameter mild steel [MS] pipe) from jackwell to proposed new WTP at Ramalkatte; (iii) construction of new 20 MLD WTP at Ramalkatte; (iv) laying clear water feeder main (0.719 km length 508 mm diameter MS pipe) from new WTP to existing clear water sump; and (v) repairs and rehabilitation of existing 1971 WTP (replacement of flash mixer, flocculators, lime mixer, alum mixer, sluice valves and gates and electrical rehabilitation works). Additionally, (i) 6 overhead tanks (OHTs); (ii) 80 MLD filtration unit for the existing 1971 WTP; and (iii) combined backwash recirculation and sludge management facilities to meet the requirement of both the existing WTPs, are also proposed for implementation with the state government funds.
 - a. KUIDFC will be the executing agency and Mangalore City Corporation (MCC) implementation agency.
 - b. Currently all 5 OHT sites (see table below) have been identified and discussions regarding acquisition are ongoing). KUIDFC will submit the evidence of payment of negotiated land price to ADB for the 5 OHTs in the SSMR and updated DDR. Land documents including the Record of Rights, Tenancy and Crops (RTC) and cadastral maps for these 5 sites is presented below;
 - c. The site at Ramalkatte (WTP) is under discussion of acquisition. Land records for the site and details of the negotiations will be added to the updated DDR.
- (ii) The existing vented Dam at Thumbe near the intake of Mangalore water supply sub-project stores water at the 6m level to meet the current needs of water supply to Mangalore City. See map below for land submerged with water at the 5 m level.
 - a. As a result of the 5m level storage, 28 people have been affected All the land submerged is designated agricultural and the affected persons are being compensated for the cost of the land and the agricultural value of the property. Of these 28, 16 persons have been compensated so far. The list of those affected by the project was published in the Vijaywani newspaper in Mangalore on Oct 7 2018 and Nov 17 2018 (see below for details of persons compensated and newspaper notification of lands affected). Land documents are held with the Municipality and are available on request.

- b. With the increase of the water level to 6m, 92 families are affected (with loss of land). The process of payment of negotiated price to the affected landowners has been initiated and 16 landowners have submitted documentation for payment so far.¹⁸ The ULB will pay the remaining landowners and submit the evidence of all payments to ADB in the SSMR
- c. Government budget is secured/allocated for the associated facilities and is available with the Deputy Commissioner. The loan agreement will include a clause requiring the borrower and the executing agency to ensure that before raising the water storage in the dam from the current level, the related resettlement plan is prepared and updated, socio-economic survey is conducted and all the affected people are compensated as per applicable government policies, prior to displacement, and all due diligence records including records of payment are submitted to ADB

¹⁸ See below.

Compensation Details for Lands Submerged with Thumbe Dam Level at 5m

	Name of Owners	Survey No	Area (acre)	Landuse	Compensation Paid (Rs)
1	Madhava Raya Pai	6/1	0.14	Agriculture	700000
2	Devappa + Others	156/1A	0.10	Agriculture	460000
3	Zakeer Hussain	61/6	0.60	Agriculture	1440000
		61/5	0.03	Agriculture	72000 (Amount Not Paid)
4	Divakar	156/1P6	1.63	Agriculture	7498000
5	Ramakrishna Alva	153/2BP2	0.86	Agriculture	3956000
6	Ummaira	61/5C	0.03	Agriculture	72000
7	PMSS Sangha	48/3	0.19	Agriculture	456000
8	Subraraya Pai	6/5	0.64	Agriculture	3200000
9	Rajeev Alva+3 Others	170/2	2.23	Agriculture	10258000
10	Divakar	156/2AP1	0.50	Agriculture	2300000
11	Ratnavathi + 4 Others	48/2	0.86	Agriculture	2064000
12	Ratnavathi + 4 Others	47/3	0.11	Agriculture	2664000
13	Mohammad Rafiq	61/5A	0.03	Agriculture	945325
		62/1BP1	0.21		
		62/1A	0.25		
14	Sarasvati Shenoy	154/3P1	0.11	Agriculture	299000
15	Sarasvati Shenoy	154/4	0.02	Agriculture	299000
16	Timmappa Rai	164/14E1(P2)	0.60	Agriculture	2760000
17	Prakash S/o late Ragvendra Achari and others	199/2	3.83	Agriculture	9192000 (Amount Not Paid)
18	Bokkayya Byari S/o Abdul Byari	61/5B	0.03	Agriculture	72000 (Amount Not Paid)
19	Puvvaya Mulya	79/1P	0.42	Agriculture	1680000 (Amount Not Paid)
20	Janaki	79/1P	0.43	Agriculture	1720000 (Amount Not Paid)
21	Sumana Shenoy	79/1P	0.70	Agriculture	2800000 (Amount Not Paid)
22	Devaki	79/1P	0.09	Agriculture	360000 (Amount Not Paid)
23	Gouri W/o Manjjapa Mulya	81/3B2	0.14	Agriculture	560000 (Amount Not Paid)
		81/2BP1	0.17	Agriculture	680000 (Amount Not Paid)
		81/1P2	0.10	Agriculture	400000 (Amount Not Paid)
24	Mahabala Nayak and others	164/1A	1.67	Agriculture	7682000 (Amount Not Paid)
25	Somappa Rai	164/1B	0.48	Agriculture	2208000 (Amount Not Paid)
26	Somappa Shetty	166	1.20	Agriculture	5520000 (Amount Not Paid)
27	Rukmini Gatti and others	47/P3	0.87	Agriculture	2088000 (Amount Not Paid)
28	Tungamma W/o Sanjeev	156/1P5	0.20	Agriculture	920000

	Sheety and Others				(Amount Not Paid)
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Compensation Details for Lands Submerged with Dam Level at 6m

Village; Sajeepa Munnur

	Land holders name as per RTC	Sy.no	Area as per RTC	Submerged area	Type	Use	Land use	Remarks
1	Ratnavati W/o Chidananda	48/2	1.48	0.62	Wet Land	Private	Agriculture	Registration done (Payment completed) Rs 26,64,000+ Rs 2,06,000
2	Lakshmi Narayana Bhat S/o Bheema Bhatt	49/2 A3	1.2	1.2	Wet Land	Private	Agriculture land	Payment completed (Rs 4,56,000)
3	Jayaprakash Mayya S/o S Krishna Mayya	49/2 A3P2	0.10	0.10	Wet Land	Private	Agriculture land	application considered
4	Jayaprakash Mayya S/o S Krishna Mayya and Others	49/2 A3P2	0.40	0.40	Wet Land	Private	Agriculture land	application considered
5	B Mohammed Beary S/o Alikunhi Beary	61/7	0.25	0.25	Wet Land	Private	Agriculture land	application considered
6	K Bhojaraj Poojary S/o K Manjappa Poojary	61/10 A3	0.36	0.18	Wet Land	Private	Agriculture land	Application Not Received
7	Santhosh S/o A B Anchan	61/10 A1	0.32	0.15	Wet Land	Private	Agriculture land	Application Not Received
8	Sheenaballal S/o Narayana Ballal	61/10 B	0.79	0.79	Wet Land	Private	Agriculture land	application considered
9	Zubaida W/o Abdul Khadar and Sons	62/2 P1	0.98	0.98	Wet Land	Private	Agriculture land	application considered
10	Maina L Shetty W/o Lokaiah Shetty	62/4	0.78	0.78	Wet Land	Private	Agriculture land	application considered
11	Mohammed S/o Bawa Beary	62/5 A	0.33	0.30	Wet Land	Private	Agriculture land	application considered

	Land holders name as per RTC	Sy.no	Area as per RTC	Submerged area	Type	Use	Land use	Remarks
12	Mammattimma W/o Abdul Beary	62/5 B	0.33	0.33	Wet Land	Private	Agriculture land	Application Not Received
13	Sooryanarayana Aithal	62/6	0.37	0.37	Wet Land	Private	Agriculture land	AskammaAwamma Abdul Paddu's according to TNC10523/74-75 land Advisory Board decided RTC not recorded in the name of sanctioned person
14	Pushparaj Shetty	62/7 P1	0.18	0.18	Wet Land	Private	Agriculture land	Application Not Received
15	Jalajakshi D/o Shankappa Shetty	62/7 P2	0.18	0.18	Wet Land	Private	Agriculture land	Application Not Received
16	Hemalatha D/o Shankappa Shetty	62/7 P3	0.24	0.18	Wet Land	Private	Agriculture land	Application Not Received
17	Sooryanarayana Aithal	62/7 P4	0.38	0.38	Wet Land	Private	Agriculture land	AskammaAwamma Abdul Paddu's according to TNC10523/74-75 land Advisory Board decided not recorded in the name of sanctioned person
18	Khatheejamma W/o Late Mohammed and Sons	63/9	0.92	0.92	Wet Land	Private	Agriculture land	application considered
19	B Mohammed S/o Aoudhramma Beary	66/7	0.29	0.29	Wet Land	Private	Agriculture land	Application Not Received
20	Abdul Hameed S/o Ahmed Beary	67/1 A	0.26	0.26	Wet Land	Private	Agriculture land	application considered

	Land holders name as per RTC	Sy.no	Area as per RTC	Submerged area	Type	Use	Land use	Remarks
21	K Aboobacker S/o Haji Abdul Rahiman	67/1 B	0.30	0.30	Wet Land	Private	Agriculture land	application considered
22	Jayashankar Basrithaya S/o Anantharama Basrithaya and Others	114/1	0.42	0.40	Wet Land	Private	Arecanut 18 nos (14 yrs)	application considered
23	S B Annappiah S/o Shivram	159/1	3.43	1.76	Wet Land	Private	Arecanut 260 nos (10 yrs)	Application Not Received
24	N Balakrishna and Others	159/4	0.90	0.34	Wet Land	Private	Coconut 7 nos (15 yrs) & Arecanut 10 nos (10 yrs)	application considered
25	N Balakrishna and Others	159/4	0.90	0.35	Wet Land	Private	Coconut 2 nos (15 years)	application considered
26	N Rama S/o Thimmappa	159/5	0.42	0.42	Wet Land	Private	Agriculture land	application considered
27	N Rama S/o Thimmappa	160/1	0.08	0.08	Wet Land	Private	Agriculture land	application considered
28	N Rama S/o Thimmappa	160/2	0.07	0.07	Wet Land	Private	Agriculture land	application considered
29	Suresh G S/o Late Guruvappa	160/6	0.79	0.79	Wet Land	Private	Agriculture land	Application Not Received
30	Lalitha Yane Lalitha and Sons	160/7	0.26	0.26	Wet Land	Private	Agriculture land	application considered
31	Lalitha Yane Lalitha and Sons	160/9	0.24	0.24	Wet Land	Private	Agriculture land	application considered
32	N Rama S/o Timmappa	165/1	0.11		Wet Land	Private	Agriculture land	Payment Made Rs 2,64,000

	Land holders name as per RTC	Sy.no	Area as per RTC	Submerged area	Type	Use	Land use	Remarks
33	Sundar S/o VenkappaMolya	165/1	0.08		Wet Land	Private	Agriculture land	Payment Made Rs 1,92,000
34	Bhoja Bangera S/o VenkappaBangera	165/1	0.08		Wet Land	Private	Agriculture land	Payment Made Rs 1,92,000
35	Kamala W/o Sesu Madivala	165/2 p5	0.24		Wet Land	Private	Arecanut 150 nos (15 yrs)	Payment Made Rs 5,76,000
36	Meenakshi W/o VenkappaMolya	165/2	0.38		Wet Land	Private	Agriculture land	Payment Made Rs 9,12,000
37	N Rama S/o Timmappa	165/2 C	0.64		Wet Land	Private	Agriculture land	Payment Made Rs 15,36,000
38	Sundar S/o VenkappaMolya	165/2 AP2	0.22		Wet Land	Private	Arecanut 95 nos (12yrs) Coconut 1 (10yrs)	Payment Made Rs 5,28,000
39	BhojaBangera S/oVenkappa Bangera	165/2 P3	0.28		Wet Land	Private	Arecanut 110 nos (14 yrs)	Payment Made Rs 6,72,000
40	DevappaMadivala S/o DejuMadivala	165/3	0.04		Wet Land	Private	Agriculture land	Payment Made Rs 96,000
41	Kamala W/o SesuMadivala	165/4	1.07		Wet Land	Private	Agriculture land	Payment Made Rs 25,68,000
42	DevappaMadivala S/o DejuMadivala	165/5	0.04		Wet Land	Private	Agriculture land	Payment Made Rs 96,000
43	Kamala W/o SesuMadivala	165/6	0.07		Wet Land	Private	Agriculture land	Payment Made Rs 1,68,000
45	S Shashiraj Rao S/o Shiva Rao	169/4 P1	1.83	1.83	Wet Land	Private		application considered
46	N K Idinabba S/o Abdul Rahman	169/4 P2	0.50	0.50	Wet Land	Private	Arecanut 325 nos (18 yrs)	application considered

	Land holders name as per RTC	Sy.no	Area as per RTC	Submerged area	Type	Use	Land use	Remarks
47	Susheela W/o Late BabuGatti	169/4 P4	0.80	0.40	Wet Land	Private	Agriculture land	Application Not Received
48	BalakrishnaGatti S/o Narayana Gatti	169/4 P9	0.49	0.49	Wet Land	Private	Agriculture land	application considered
49	Yamuna Gatti W/o PoovaGatti	167/2	0.07	0.07	Wet Land	Private	Agriculture land	Application Not Received
50	Yamuna Gatti W/o PoovaGatti	169/4 P5	0.40	0.40	Wet Land	Private	Agriculture land	Application Not Received
51	Rukmini and Others	182/*	1.49	0.09	Wet Land	Private	Agriculture land	Application Not Received
52	SinthiyaCastelino , Jeetha Pereira	199/3 AP2	0.60	0.53	Wet Land	Private	Agriculture land	application considered
53	Phelex Dsouza S/o Late Salvador Dsouza	199/1 AP4	0.05	0.05	Wet Land	Private	Agriculture land	application considered
54	Phelex Dsouza S/o Late Salvador Dsouza	199/1 AP2	0.23	0.23	Wet Land	Private	Agriculture land	application considered
55	Vincent Dsouza S/o Salvador Dsouza	199/1 P2	0.27	0.27	Wet Land	Private	Agriculture land	application considered
56	Vincent Dsouza S/o Salvador Dsouza	199/1 P4	0.04	0.04	Wet Land	Private	Agriculture land	application considered
57	Angeline Dsouza D/o Leo Dsouza	199/1 AP3	0.50	0.50	Wet Land	Private	Agriculture land	application considered
			Total	22.82				

Village: Mooda

	Land holders name as per RTC	Sy.no	Area as per RTC	Submerged area	Type	Use	Landuse	Remarks
1	Mis. Manjakka D/o Tyamsanna Rai and Others	164/1 4C2A 2P1	0.13	0.13	Wet Land	Private	Agriculture land	Application Not Received
2	Girija W/o Late K PadmappaMoolya and Others	164/1 4C2A 2P2	0.23	0.23	Wet Land	Private	Agriculture land	application considered
3	Girija W/o Late K PadmappaMoolya and Others	164/1 4C2A 2P2	0.39	0.39	Wet Land	Private	Agriculture land	application considered
4	Pushpavathi W/o K Thimmappa Rai and Others	164/1 4D1	1.42	1.29	Wet Land	Private	Agriculture land	application considered
5	Pushpa S Shetty and Others	164/1 4D2	1.93	1.93	Wet Land	Private	Agriculture land	application considered
6	Pushpa S Shetty and Others	164/1 4D2	0.63	0.63	Wet Land	Private	Agriculture land	application considered
7	Dinesh Rai S/o Thimmappa Rai	164/1 4E1	0.60	0.60	Wet Land	Private	Agriculture land	application considered
8	MahabalaNaik joint DevayaNaik	164/1 4E2	0.58	0.58	Wet Land	Private	Agriculture land	Application Not Received
9	Somappa Rai S/o Linkappa Rai	161/3	1.48	1.48	Wet Land	Private	Agriculture land	Application Not Received
10	Somappa Rai S/o Linkappa Rai	161/4	0.89	0.21	Wet Land	Private	Agriculture land	Application Not Received
11	Somappa Rai S/o Linkappa Rai	161/8	1.06	1.06	Wet Land	Private	Agriculture land	Application Not Received
12	Hemavathi joint with Others	169/1	1.10	1.10	Wet Land	Private	Agriculture land	application considered
13	Kushala P Shetty W/o Late PushparajShetty	168/1	1.62	1.62	Wet Land	Private	Agriculture land	Application Not Received

14	P Divakara Shetty S/o Balakrishna Shetty	174/40	1.41	1.41	Wet Land	Private	Agriculture land	application considered
15	F Mohammed Bawa Late Ithinabba	174/41	1.20	1.20	Wet Land	Private	Agriculture land	Application Not Received
16	Hemavathi S Alva W/o Seena Alva and Others (Joint)	170/2	0.75	0.40	Wet Land	Private	Agriculture land	Application Not Received
17	P Divakara Shetty S/o Balakrishna Shetty	174/5	0.54	0.54	Wet Land	Private	Agriculture land	application considered
18	MahabalaNaik , MarappaNaik, DevayyaNaik, Moovanna Shetty	165/1	0.12	0.12	Wet Land	Private	Agriculture land	Application Not Received
19	Isamma W/o Late Hasanabba	150/2	0.75	0.75	Wet Land	Private	Arecanut 100 nos (10 yrs)	application considered
20	ShantharamaBhandary	164/14A/A	0.48	0.48	Wet Land	Private	Agriculture land	Registration done (Payment complete)
21	P Divakara S/o Late M Gopala	156/1 PA	0.23	0.23	Wet Land	Private	Agriculture land	Registration done (Payment complete)
			Total	16.80				

Details of compensation paid so far.

Sl.no	Sy.no	Area	Type of land	Land holders	amount paid (Rs)	Date paid
I	Village: Sajeepa Munnuru					
1	47/3	1.11	Wet land	Ratnavati W/o Chidananda and others	2664000	30-01-2018
2	48/2	0.86	Wet land	Ratnavati W/o Chidananda and others	2064000	30-01-2018
3	48/3	0.19	Wet land	Lakshmi Narayana Bhat	456000	25-12-2017
4	61/5A	0.03	Wet land	MahomadRafiq S/o Abdul	72000	25-01-2018

	62/1BP1	0.21		Khadar	504000	
	62/1A	0.25			600000	
5	61/5C	0.03	Wet land	Umaier S/o Mahomad Bashir	72000	03-09-2018
II	Village: Pane Mangalore					
6	6/1	0.14	Wet land	P MadhavrayaPai	700000	29-01-2018
7	6/5	0.64	Wet land	B SubrayaPai	3200000	29-01-2018
IV	Village: b. Mooda					
8	170/2	2.23	Wet land	Hemavati Alva	10258000	03-09-2018
9	156/1P6	1.63	Wet land	P.Diwakara s/o GoppalSaliyan and Asha Diwakar w/o Diwakar	7498000	27-02-2018
10	156/1A	0.10	Wet land	Devappa and Others	460000	25-02-2018
11	156/2Ap1	0.50	Wet land	V Diwakar S/o Gopal Saliyan	2300000	25-02-2018
12	154/3p1	0.11	Wet land	Narayana Shanbhag	506000	29-06-2018
13	154/4	0.02	Wet land	Narayana Shanbhag	92000	29-06-2018
14	153/2bp2	0.86	Wet land	Kalyani W/o Sheshshetty and others	3956000	07-03-2018
15	61/6	0.60	Wet land	JakirHussen S/o Abdul Jadhar and Others	1440000	15-10-2018
16	164/14E1P2	0.60	Wet land	Timmapparai and Others	2760000	15-10-2018
	Total	10.11			39602000	

ASSOCIATED FACILITIES

Notification in Vijaywani, Mangalore newspaper identifying lands submerged by the increase in the level of Thumbe Dam and the compensation made

[illegible]

B. 5. 1. 1. 1. 1.				
1	164/144 2022/1	0.13	30	ಮಂಜುಳೆ ಹೆಣ್ಣು ಕೂಗು ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
2	164/144 2022/2	0.23	30	ಗಿರಾ ಕೂಗು ರೀತಿ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
3	164/144 2022/3	0.39	30	ಗಿರಾ ಕೂಗು ರೀತಿ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
4	164/144 2022/4	1.29	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
5	164/144 2022/5	1.93	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
6	164/144 2022/6	0.63	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
7	164/144 2022/7	0.60	30	ಗಿರಾ ಕೂಗು ರೀತಿ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
8	164/144 2022/8	0.58	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
9	164/144 2022/9	1.48	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
10	164/144 2022/10	0.21	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
11	164/144 2022/11	1.06	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
12	164/144 2022/12	1.10	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
13	164/144 2022/13	1.62	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
14	164/144 2022/14	1.41	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
15	164/144 2022/15	1.20	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
16	164/144 2022/16	0.40	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
17	164/144 2022/17	0.34	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
18	164/144 2022/18	0.12	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
19	164/144 2022/19	0.75	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು
20	164/144 2022/20	0.48	30	ಮಂಜುಳೆ ಕೂಗು ಕೆ ಪುಟ್ಟಣ್ಣ ರೈ ಮಕ್ಕಳು

List of 57 persons identified in Sajippa munnur village and 21 identified in Mooda village announced in Vijayawani, Mangaluru on 7 Oct 2018

ASSOCIATED FACILITIES
LAND DOCUMENTS FOR THE PRIVATE SITES (FOR OHT'S) UNDER NEGOTIATION

RTC and Cadastral map for Site at JM Road, Bajal

Title		Volume		Survey Number		Date																			
Title: Land Use		Volume: 10		Survey Number: 76/14/1		Date: 2014/01/01																			
<p>OWNER DETAILS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Owner Name/Person</th> <th>Address</th> <th>Phone</th> <th>Occupation</th> <th>Signature</th> <th>Stamp</th> </tr> </thead> <tbody> <tr> <td>Mr. A. A. A.</td> <td>10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100</td> <td>011-1234-5678</td> <td>Engineer</td> <td></td> <td></td> </tr> <tr> <td>Mr. B. B. B.</td> <td>10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100</td> <td>011-1234-5678</td> <td>Engineer</td> <td></td> <td></td> </tr> </tbody> </table>								Owner Name/Person	Address	Phone	Occupation	Signature	Stamp	Mr. A. A. A.	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	011-1234-5678	Engineer			Mr. B. B. B.	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	011-1234-5678	Engineer		
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Sl. No.	Name of the Person	Age	Sex	Religion	Marital Status	Occupation	Address	Signature	Date
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Signature of the Officer in Charge

Date



RTC and Cadastral Map for Site at Holyhill, Maroli

[illegible]

RTC and Cadastral Map for Site at Kodikal

RECORD OF RIGHTS, TENURE AND CROPS IN P.T. FORM NO. 12

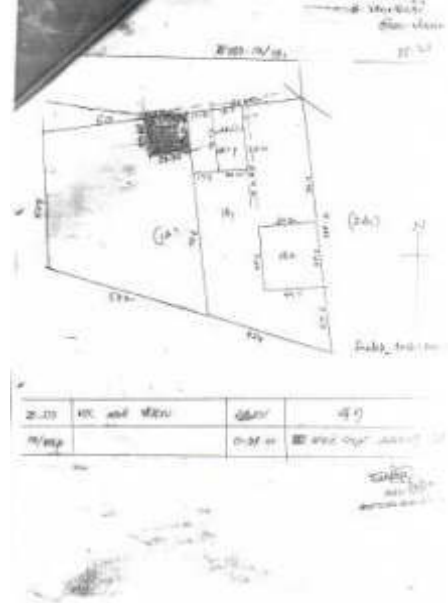
Title: Hundi Village: K.D. Survey Number: 57/1(A) District: Kodikal Taluk

Recorded: 19/11/2011 Date of Survey: 19/11/2011

OWNER DETAILS

Sl. No.	Name of the Owner	Category	Area	Acquisition Type and Date	Usual crops and cultivation
1	Mr. S. S. S. S.	RY	0.00	19/11/2011	
2	Mr. S. S. S. S.	RY	0.00	19/11/2011	

Signature of the Officer: _____



SECTION 11, TOWNSHIP 36 NORTH AND RANGE 12 EAST, 100TH MERIDIAN, T8

TAXPAYER: **WILLIAM J. HARRIS** ADDRESS: **12345 E. 100TH AVE** CITY: **EDMONTON, ALBERTA**

LAND: **100-10-10-10-10-10** AREA: **100.00 AC.** VALUE: **\$100,000.00**

OWNER DETAILS

OWNER NAME	ADDRESS	CITY	PROVINCE	COUNTRY	PHONE	FAX
WILLIAM J. HARRIS	12345 E. 100TH AVE	EDMONTON	ALBERTA	CANADA	(403) 123-4567	(403) 123-4567

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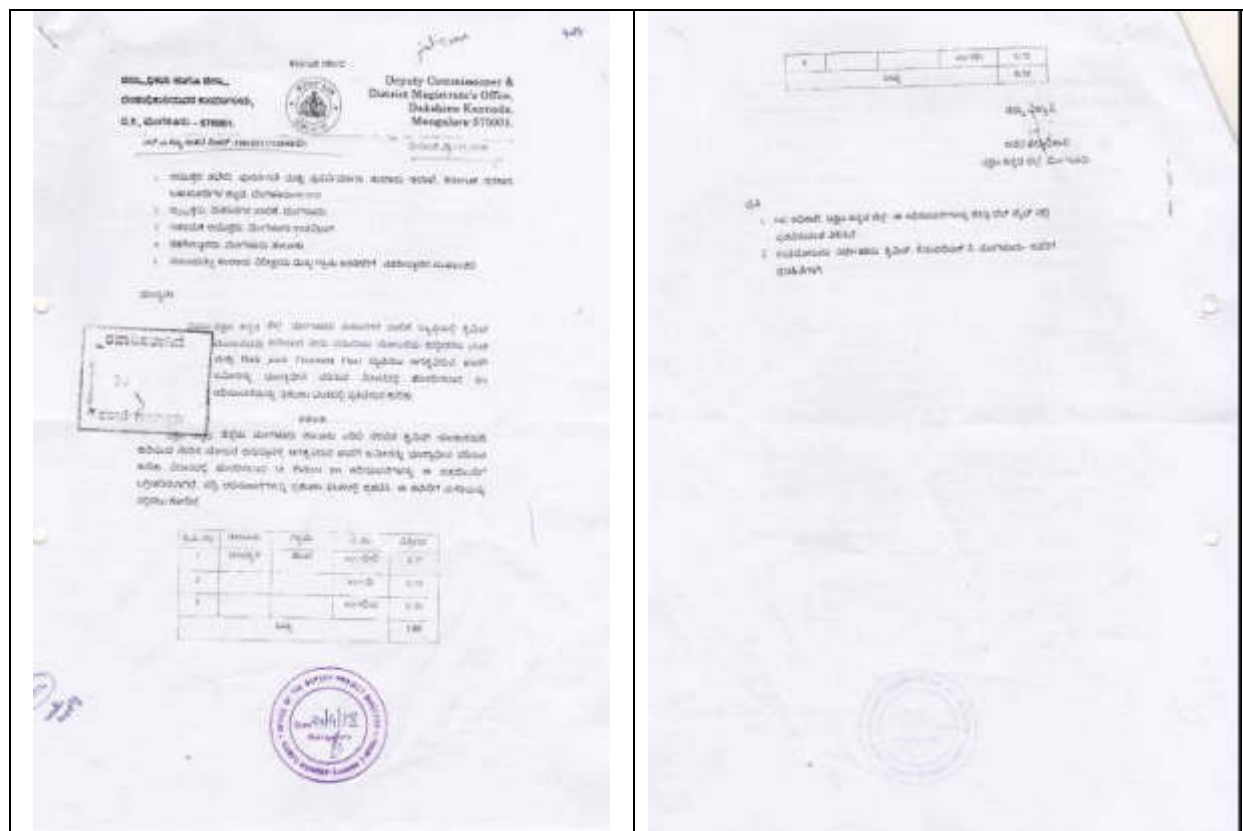
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WILLIAM J. HARRIS	12345 E. 100TH AVE	EDMONTON	ALBERTA	CANADA	(403) 123-4567	(403) 123-4567

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**COMMUNICATION AND LAND DOCUMENTS FOR ACQUISITION OF PRIVATE SITES AT
RAMALKATTE FOR FILTER PLANT AND BACKWASH- UNDER NEGOTIATION**



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මෙම ප්‍රකාශනවලදී, දැක්වෙන සේවකයන් සඳහා මෙම මාර්ගසටහන අනුගමනය කිරීමට අනුරුද්ධයා විධායක නිවැරදිකරුවෙකුට, එම පත් සේවකයන් සමඟ සඳහන් කරනු ලබන තොරතුරු සැපයීමට ප්‍රකාශනවලින් නිවැරදිව ප්‍රකාශයක් සකස් කළ යුතු බවට සහතික කළ යුතුය.

ප්‍රකාශන සේවකයන් වෙත, පත්වනු ලබයි.

සහ, සඳහා,
විධායක ප්‍රකාශනවලින්
නිවැරදිකරුවෙකු, සැලකෙන්න.

අයි. 1. සේවකයාගේ, ප්‍රකාශන සකස් කිරීමේ සහතිකයක් සපුරායි.
2. ප්‍රකාශනවල සකස් කිරීමට, ප්‍රකාශන - සමාජ කළ යුතුය අදාළ.
3. සමාජයේ සේවකයා, KJUMMP - RPSU, සැලකෙන්න - සමාජ සහතිකයක් සපුරායි.
4. සේවකයා සේවකයා, KJUMMP, සැලකෙන්න, සැලකෙන්න - සමාජ සහතිකයක් සපුරායි.

සැලකෙන්න

TRANSLATION

**GOVERNMENT OF KARNATAKA
OFFICE OF THE DC AND DISTRICT MAGISTRATE
DK, MANGALORE-575001**

2AQ.CR106/2017/12649.B**24.01.2018****Date:**

1. Office of the Commissioner Rehabilitation and Reconstruction, Revenue Department Government of Karnataka
2. Commissioner , MCC-Mangalore
3. Assistant Commissioner, Mangalore Sub Division
4. Tahasildar, Mangalore Taluk
5. Revenue Inspectors concerned village Accountants (Through Tahasildar)

Sir,

Subject: Land acquisition for establishment of back wash treatment plant under KIUWMIP drinking water supply Scheme- Publication of SIA notification, Regarding.

Land acquisition for ADB supported KIUWMIP drinking water project in Mangalore Taluk SIA notifications are enclosed for publication and submit the report.

SI No	Taluk	Village	Survey Number	Extent
1	Bantwala	Thumbe	40/1B1B	0.77
2	Bantwala	Thumbe	40/1C1	0.73
3	Bantwala	Thumbe	40/1B1A	0.30
Total				1.80
4	Bantwala	Thumbe	40/1D1	0.72

Yours Faithfully
DC
DK District, Mangalore

Copy,

1. NIC Officer, DK District for Publication in web site
2. DPD-KIUWMIP-KUIDFC Mangalore for Information

**OFFICE OF THE DC
DAKSHINA KARNATAKA – MANGALORE**

**FORM-1 PART-A
SOCIAL EXPERT ASSESSMENT NOTIFICATION**

The right to fair compensation and transparency in land acquisition rehabilitation Act
(Karnataka) Rule 2015-(30)

Order number: LAQ.MCS.CR-106/2017/12649/B1 Dated: 30.12.2017

1. Under ADB supported KUIDFC-KUIWMIP-Tranche-2 “JALASIRI” project, 24x7 water supply project is established in Mangalore city.
2. Back wash treatment plant and drinking water purification plant to be established in public intent.
3. This project will be established in Thumbe village of Bantwal Taluk.

District	Taluk	Village	Survey Number	Extent	Name of Land Owner as per RTC	Building Structure	Tree Growth
DK District Water Purification unit	Bantwal	Thumbe	40-1B1B 40-1C1 40-1B1A	0.77 0.73 0.30	Ravishankara Alva - Narayana Chandu, Shivappa, Vimala Bin Angara Gatti	NIL	Jungle Wild Growth
Total				1.80			
Back Wash Treatment Plant	Bantwal	Thumbe	40-1D1	0.72	Vanitha H Alva, Geetha S Shetty Bin Vital Shetty	NIL	Jungle Wood
Total				0.72			

4. In above mentioned lands SIA has made as per RFCT in LAQ Act 2013
5. The agency which SIA report submit has to follow the regulation and conditions of agreement as per RFTCT Act 2013 and rule 3(6) of Karnataka Act of 2015.
6. The SIA report should be published in public places like DC office DK, AC office Mangalore, Taluk Office Mangalore, MCC Office, Grama Chavadi and District web site.
7. After this notification lands cannot be used for sale, Lease or exchanged without the permission of DC and ex-officer Administration for rehabilitation. After the notification if any structure or any development made will not be liable for compensation.
8. If any person obtaining any forms from state or central government cannot be restrained the SIA reporting organisation or any person relating to the site.
9. Mr. C Ishwarappa president LEAD @ Social Impact Assessment study organisation is authorised to submit proposal and the main office address is
“ Raitha Bhavana-APMC Yard Road Shivamoga- 577201, Phone: 9900256084, Email: kutumba99@gmail.com.
10. State SIA unit address as follows,
Office of the Commissioner for Rehabilitation and Resettlement Revenue Department
Karnataka - MS Building Bangalore-1

Deputy Commissioner

Mangalore

Number: LAQ.SR.7/17-18**Office of the Special Land
Acquisition Officer-MCC Mangalore**

Date: 11.10.2018

To,
The Deputy Commissioner
DK District

Sir,

**Subject: 24x7 water supply programme under KUIWMIP- Water purifying treatment plant-
Land Acquisition in Thumbe Village.**

**Reference: 1. Letter number: ADC's LAQ.CR24/17-18 Dated: 27.12.2017 from land
acquisition Officer and Assistant Commissioner Mangalore.
2. Your Office Publication Letter Number: LAQ/MS/CR106-2017/12649/B1 Dated
11.09.2018**

The commissioner MCC Mangalore has requested to acquire the lands in Survey number 40-1B1A- 0.30 Acres, 40-1A1BP1-0.77 Acres and in 40-1C1- 0.73 Acres (in total 1.80 Acres) in Thumbe Village Of Bantwal Taluk for construction of Drinking Water Purification and Back Wash Treatment Plant . According to Land Acquisition procedures the public meeting for social impact assessment was conducted on 05.10.2018: spot inspection of acquiring lands was also completed. The proposed Survey Number 40/1A1BP2 as per RTC belongs to Sri Ravi Shankar Alva. But Sri Umesh Shetty, the owner of Survey number 40-1A, 0.43 acres claims the proposed land belongs to me only and no notice is issued to me regarding land acquisition.

For confirmation of land acquisition survey number in 40-1ABP2 and 40-1A the survey measurement is required and requested Assistant Director land records Bantwal to survey and submit the report

Enclosed: copy of application from Umesh Shetty and sketch copy

Yours faithfully

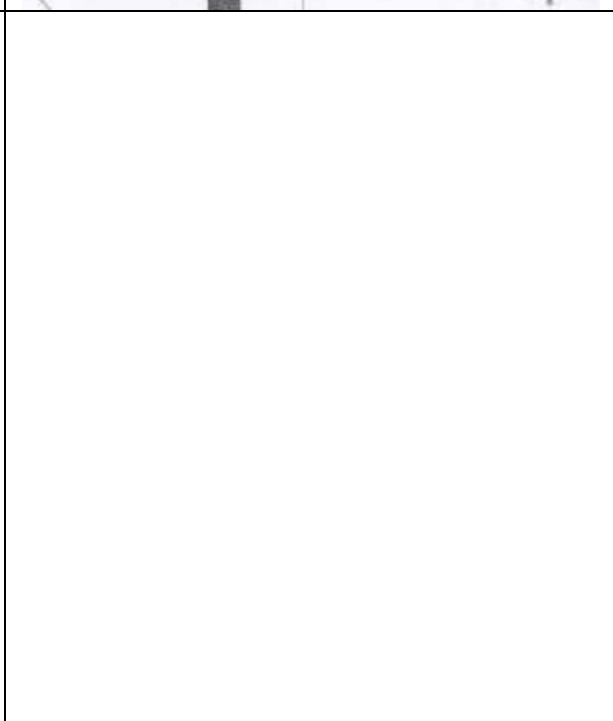
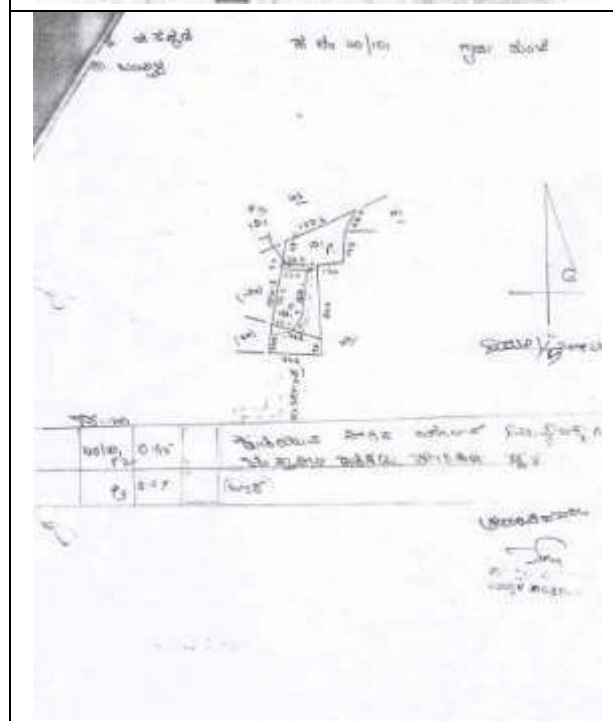
Special Land acquisition Officer MCC
Mangalore

Copy:

1. Tahasildar Bantwal, for information
2. ADLR Bantwal, for needful action
3. DPD-KIUWMIP-RPMU-Mangalore, for Information
4. EE, KIUWMIP-MCC ,Mangalore, for information

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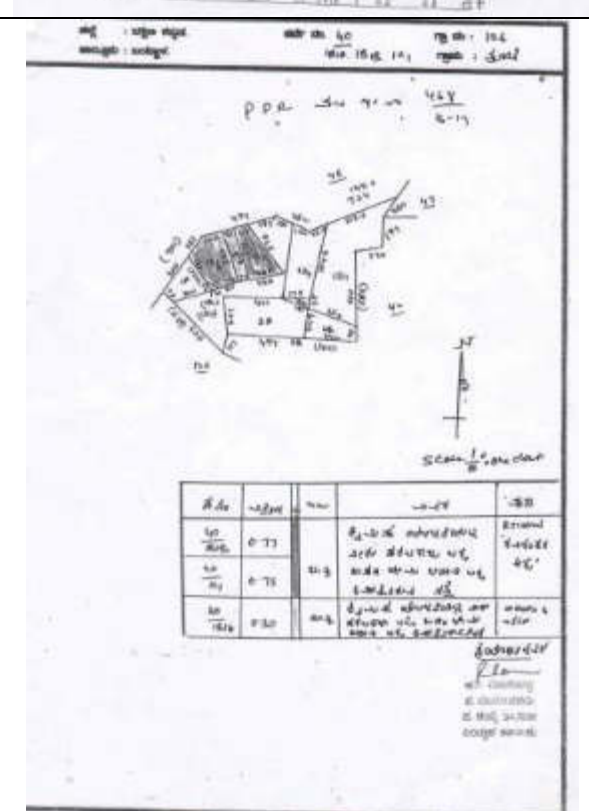
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[illegible]

Name		Age		Sex		Color		Breed		Remarks		Date		Time		Place		Remarks	
First	Last	Years	Months	Male	Female	Black	White	Gray	Red	Blue	Green	Yellow	Orange	Pink	Purple	Other	Notes	Notes	Notes
1	John	25	0	Male		Black													
2	Mary	22	0	Female		White													
3	James	20	0	Male		Gray													
4	Elizabeth	18	0	Female		Red													
5	William	15	0	Male		Blue													
6	Anna	12	0	Female		Green													
7	Robert	10	0	Male		Yellow													
8	Charlotte	8	0	Female		Orange													
9	Thomas	6	0	Male		Pink													
10	Isabella	4	0	Female		Purple													
11	George	3	0	Male		Other													
12	Emily	2	0	Female															
13	Henry	1	0	Male															
14	Frances	0	0	Female															
15	Charles	0	0	Male															
16	Elizabeth	0	0	Female															
17	William	0	0	Male															
18	Anna	0	0	Female															
19	Robert	0	0	Male															
20	Charlotte	0	0	Female															
21	Thomas	0	0	Male															
22	Isabella	0	0	Female															
23	George	0	0	Male															
24	Emily	0	0	Female															
25	Henry	0	0	Male															
26	Frances	0	0	Female															
27	Charles	0	0	Male															
28	Elizabeth	0	0	Female															
29	William	0	0	Male															
30	Anna	0	0	Female															
31	Robert	0	0	Male															
32	Charlotte	0	0	Female															
33	Thomas	0	0	Male															

Name		Age		Sex		Religion		Marital Status		Education		Occupation		Income		Assets		Liabilities		Net Worth		Other Information	
1	John Doe	35	Male	Christian	Married	High School	Teacher	\$40,000	\$10,000	\$50,000	\$20,000	\$30,000	\$10,000	\$40,000	\$10,000	\$30,000	\$10,000	\$20,000	\$10,000	\$30,000	\$10,000	\$20,000	\$10,000
2	Jane Doe	32	Female	Christian	Married	High School	Teacher	\$40,000	\$10,000	\$50,000	\$20,000	\$30,000	\$10,000	\$40,000	\$10,000	\$30,000	\$10,000	\$20,000	\$10,000	\$30,000	\$10,000	\$20,000	\$10,000
3	John Smith	45	Male	Protestant	Married	College	Engineer	\$60,000	\$15,000	\$75,000	\$30,000	\$45,000	\$15,000	\$60,000	\$15,000	\$45,000	\$15,000	\$30,000	\$15,000	\$45,000	\$15,000	\$30,000	\$15,000
4	Jane Smith	42	Female	Protestant	Married	College	Engineer	\$60,000	\$15,000	\$75,000	\$30,000	\$45,000	\$15,000	\$60,000	\$15,000	\$45,000	\$15,000	\$30,000	\$15,000	\$45,000	\$15,000	\$30,000	\$15,000
5	John Brown	55	Male	Catholic	Married	College	Engineer	\$80,000	\$20,000	\$100,000	\$40,000	\$60,000	\$20,000	\$80,000	\$20,000	\$60,000	\$20,000	\$40,000	\$20,000	\$60,000	\$20,000	\$40,000	\$20,000
6	Jane Brown	52	Female	Catholic	Married	College	Engineer	\$80,000	\$20,000	\$100,000	\$40,000	\$60,000	\$20,000	\$80,000	\$20,000	\$60,000	\$20,000	\$40,000	\$20,000	\$60,000	\$20,000	\$40,000	\$20,000



Appendix 12: SEMI ANNUAL ENVIRONMENTAL MONITORING REPORT TEMPLATE

INTRODUCTION

- Overall project description and objectives
- Environmental category as per ADB Safeguard Policy Statement, 2009
- Environmental category of each subproject as per national laws and regulations
- Project Safeguards Team

Name	Designation/Office	Email Address	Contact Number
1. PMU			
2. PIUs			
3. Consultants			

- Overall project and sub-project progress and status
- Description of subprojects (package-wise) and status of implementation (preliminary, detailed design, on-going construction, completed, and/or O&M stage)

Package Number	Components/ List of Works	Status of Implementation (Preliminary Design/Detailed Design/On-going Construction/Completed/O&M) ^a	Contract Status (specify if under bidding or contract awarded)	If On-going Construction	
				%Physical Progress	Expected Completion Date

^a If on-going construction, include %physical progress and expected date of completion.

II. Compliance Status With National/State/Local Statutory Environmental Requirements

Package No.	Subproject Name	Statutory Environmental Requirements	Status of Compliance	Validity if obtained	Action Required	Specific Conditions that will require environmental monitoring as

						per Environment Clearance, Consent/Permit to Establish ^d

^a All statutory clearance/s, no-objection certificates, permit/s, etc. should be obtained prior to award of contract/s. Attach as appendix all clearance obtained during the reporting period. If already reported, specify in the "remarks" column.

^b Specify (environmental clearance? Permit/consent to establish? Forest clearance? Etc.)

^c Specify if obtained, submitted and awaiting approval, application not yet submitted.

^d Example: Environmental Clearance requires ambient air quality monitoring, Forest Clearance/Tree-cutting Permit requires 3 trees for every tree, etc.

III. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

No. (List schedule and paragraph number of Loan Agreement)	Covenant	Status of Compliance	Action Required

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT PLAN (REFER TO EMP TABLES IN APPROVED IEE/S)

- Confirm if IEE/s require contractors to submit site-specific EMP/construction EMPs. If not, describe the methodology of monitoring each package under implementation.

Package-wise Implementation Status

Package Number	Components	Design Status (Preliminary Design Stage/Detailed Design Completed)	Final IEE based on Detailed Design				Site-specific EMP (or Construction EMP) approved by Project Director? (Yes/No)	Remarks
			Not yet due (detailed design not yet completed)	Submitted to ADB (Provide Date of Submission)	Disclosed on project website (Provide Link)	Final IEE provided to Contractor/s (Yes/No)		

- Identify the role/s of Safeguards Team including schedule of on-site verification of reports submitted by consultants and contractors.
- For each package, provide name/s and contact details of contractor/s' nodal person/s for environmental safeguards.

- Include as appendix all supporting documents including **signed** monthly environmental site inspection reports prepared by consultants and/or contractors.
- With reference to approved EMP/site-specific EMP/construction EMP, complete the table below
- Provide the monitoring results as per the parameters outlined in the approved EMP (or site-specific EMP/construction EMP when applicable).
- In addition to the table on EMP implementation, the main text of the report should discuss in details the following items:
 - (i) **Grievance Redress Mechanism.** Provide information on establishment of grievance redress mechanism and capacity of grievance redress committee to address project-related issues/complaints. Include as appendix Notification of the GRM (town-wise if applicable).
 - (ii) **Complaints Received during the Reporting Period.** Provide information on number, nature, and resolution of complaints received during reporting period. Attach records as per GRM in the approved IEE. Identify safeguards team member/s involved in the GRM process. Attach minutes of meetings (ensure English translation is provided).
- Confirm if any dust was noted to escape the site boundaries and identify dust suppression techniques followed for site/s.
- Identify muddy water was escaping site boundaries or muddy tracks were seen on adjacent roads.
- Identify type of erosion and sediment control measures installed on site/s, condition of erosion and sediment control measures including if these were intact following heavy rain;
- Identify designated areas for concrete works, chemical storage, construction materials, and refueling. Attach photographs of each area.
- Confirm spill kits on site and site procedure for handling emergencies.
- Identify any chemical stored on site and provide information on storage condition. Attach photograph.
- Describe management of stockpiles (construction materials, excavated soils, spoils, etc.). Provide photographs.
- Describe management of solid and liquid wastes on-site (quantity generated, transport, storage and disposal). Provide photographs.
- Provide information on barricades, signages, and on-site boards. Provide photographs.
- Provide information on
- Checking if there are any activities being under taken out of working hours and how that is being managed.

Summary of Environmental Monitoring Activities (for the Reporting Period)^a

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Design Phase						
Pre-Construction Phase						
Construction Phase						
Operational Phase						

^a Attach Laboratory Results and Sampling Map/Locations

Overall Compliance with CEMP/EMP

No.	Sub-Project Name	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/ EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required

V. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

- Brief description on the approach and methodology used for environmental monitoring of each sub-project

VI. MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (ambient air, water quality and noise levels)

- Brief discussion on the basis for monitoring
- Indicate type and location of environmental parameters to be monitored
- Indicate the method of monitoring and equipment to be used
- Provide monitoring results and an analysis of results in relation to baseline data and statutory requirements

As a minimum the results should be presented as per the tables below.

Air Quality Results

Site No.	Date of Testing	Site Location	Parameters (Monitoring Results)			
			PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ³	NO2 µg/m ³

Surface Water Quality Results

S.No.	Parameters	Results		
		Location-1 (Name)	Location-2 (Name)	Location-3 (Name)
1.	pH			
2.	Turbidity			
3.	Total Hardness			
4.	DO			
5.	BOD			
6.	COD			
7.	Chloride			
8.	Iron			
9.	TSS			
10.	Arsenic			
11.	Cadmium			
12.	Fluoride			

13.	Potassium			
14.	Sodium			
15.	Calcium			
16.	Zn			
17.	Cr ⁺⁶			
18.	Magnesium			
19.	Copper			
20.	Manganese			
21.	Sulphate			
22.	Cyanide			
23.	Nitrate			
24.	Lead			
25.	Boron			
26.	Selenium			
27.	Aluminium			
28.	Total residual Chlorine			

Ground Water Quality Results

S.No.	Parameters	Results		
		Location-1 (Name)	Location-2 (Name)	Location-3 (Name)
1.	pH			
2.	Total Alkalinity			
3.	Total Hardness			
4.	Chloride			
5.	Iron			
6.	TDS			
7.	Arsenic			
8.	Fluoride			
9.	Zn			
10.	Cr+6			
11.	Copper			
12.	Manganese			
13.	Sulphate			
14.	Phosphate			
15.	Nitrate			
16.	Lead			
17.	Phenolic Compound			

Noise Quality Results

Site No.	Date of Testing	Site Location	LA _{eq} (dBA) (Monitoring Results)	
			Day Time	Night Time

VII. ASBESTOS MANAGEMENT

Information on encountered or potential asbestos materials and capacity building activities on project sites should be included in this section.

FORM I – ASBESTOS INVENTORY, INSPECTION AND ACTION FORM		
Format: RUIDP/IIA/ LOCATION/NAME OF DBO CONTRACTOR/HSE 002/YEAR		
Location:		
Site coordinates:		
Elevation:	Team:	
Date of visit:	Sign:	
Present Status		Indicate if installed, operational, in storage, etc.
Original age		Months or years since installation
Diameter		mm or inches
Length		meters
Volume		
Total packet		
Packing date		
Disposal date		
Existing Site (Photo or illustrations):		
Illustration/ Design of Activities On-site with respect to existing asbestos (include details such as size of new pipes, distance from existing AC pipes, other notable observations)		
DBO Contractor Handling Asbestos:		
Number of persons handling waste		
Medical Records		
Safety Gears		
Vocational Training Last Conducted:		
Number of attendees:		
Conducted by Schedule:		
Required Actions:		
Remarks		
Conclusion/Remark		
HSE Signatory		

MATRIX FOR TRAINING & RECORDS

Format: RUIDP/INSP.MATRIX/LOCATION/NAME OF DBO CONTRACTOR/HSE 001/YEAR			
S. No.	Aspects of Asbestos Materials	Check points	Remarks
Training Schedule:			
Trainer Details:			
Date/Location of Training:			
Number of attendees:			

Training Schedule, Training Materials & Attendance Sheet, Feedback of Trainees.				
Understanding of:				
A. DOCUMENTS AND RECORDS				
1.	Site Inventory			
2.	List of Asbestos materials storage and installation points			
3.	Structure of Asbestos materials management committee			
B. INVENTORY				
1.	Inventory of Asbestos materials			
	Number of Asbestos materials/ pipes			
	Dimensions of Asbestos materials/ pipes			
	Total volume of Asbestos materials/ pipes			
2.	Storage facility/ installation location:			
A.	In-use	Location		
		Condition	Intact/ damaged	
		Purpose		
		Accessibility by the workers		
		Evidence of physical damage and approximate size (length, width, volume) without coming into contact with The damaged Asbestos materials		
		Impacts on the environment (Based on Asbestos fiber Monitoring)		
3.	LABELING AND SIGNAGE			
	Notification to workplace safety and health			
	Working instruction			
	The risks associated with exposure to asbestos fibers			
	Cautionary statement to not disturb materials containing asbestos			
4.	PERSONAL PROTECTIVE EQUIPMENT (PPE)			
	Record of PPE			
	Mask			
	Eye glasses			
	Gloves			
	Ear muffs			
	Others			
	Training			
	On occupational risks of asbestos to the workers		Date: Time: In-house/ external: Faculty: No of workers attended:	
	Training for maintenance, repair and renovation		Date: Time: In-house/ external: Faculty:	

Appendix 13: ENVIRONMENTAL AUDIT OF THE EXISTING WATER TREATMENT PLANT IN MANGALORE

I. Introduction

The objectives of this environmental audit are to (i) assess the compliance of the existing water treatment plant (WTP) to be rehabilitated/augmented during the implementation of KIUWMIP with environmental legislation; (ii) improve environmental performance through monitoring the effectiveness of the management system; and (iii) increase the Mangalore CC's knowledge of itself and its activities, thus increasing its ability to continually improve and minimize future potential liabilities.

The environmental audit was carried out for the existing WTP. In Mangalore at three different locations water treatment being done. The methodology adopted for this audit was to initially review existing plans and technical information and list various activities being carried out in the WTP. Due diligence was carried out to physically check whether environmental performance, health and safety, etc. were in compliance with national and state prescribed standards and guidelines. Team visited the WTP and observed operations. Meetings and discussions with key personnel were held in the various stages of the audit. Various documentations regarding the operational aspects were also checked.

II. Description of Existing Water Treatment Plant at Mangalore

Water Treatment Plant at Ramalkatte (KUDCEMP)

Location	Mangalore City Latitude:12°50'N Longitude:74°47'E
Start of operation (year)	2009
Owned by	City Corporation, Mangalore
Contact person and designation	Mr. Naresh Shenoy Assistant Executive Engineer +919448502777
Capacity	80 million liters per day (MLD)
Water supply source	River Nethravathi, (intake well is 17 km from Mangalore)
Water treatment process	Technology: The treatment process is conventional, and has following units: Cascade Aerator, Raw Water Channel with Parshall Flume or continuous flow measurement, Coagulant & Flocculent chemical make up tanks, Flash Mixing tank, flocculator , Tube settlers ,ten sand filters, Chlorination system and Clear water Sump & pump house.
	Materials: All civil structures are made of reinforced cement concrete, and mechanical units like the of HYSD steel. Process: the water from raw water pumping main enters into the inlet, and the first unit is cascade aerator. After aeration water passes through Parshall flume, where flow is measured. Coagulant

	and flocculent chemicals (alum and Lime) are added to the water, and mixed in the flash mixer tank, and then flows into flocculator then to Tubesetter and Clarified water flows into sand filters (six numbers) for filtration and the filtered water is disinfected with chlorine and allowed to flow into clear water tank from where water pumped into service reservoirs for distribution.
Backwash water and sludge management	<p>-filter backwash water is let into open drains as there is no recycling of backwash into inlet</p> <p>- the settled sludge from the bottom of the clarifier tank is periodically flushed into the drains.</p> <p>-the untreated backwash and sludge flushing ultimately reaches and disposed off into drain.</p>
Chlorination system	<p>Chlorine dosage system is properly working; there are proper safety precautions in place.</p> <p>Chlorine cylinders (900 kg tonners) are used which is placed at one side of the room. safety systems like leak detection or emergency alarm or lime slurry pit available in the facility. Operators are aware of safety measures or actions to be performed during any emergency.</p>

Water Treatment Plant at Ramalkatte 1974 Scheme

Location	Mangalore City Latitude:12°50'N Longitude:74°47'E
Start of operation (year)	1974
Owned by	City Corporation, Mangalore
Contact person and designation	Mr. Naresh Shenoy Assistant Executive Engineer +919448502777
Capacity	81.7 million liters per day (MLD)
Water supply source	River Nethravathi, (intake well is 17 km from Mangalore)
Water treatment process	Technology: The treatment process is conventional, and has following units: Cascade Aerator, Raw Water Channel with Parshall Flume or continuous flow measurement, Coagulant & Flocculent chemical make up tanks, Flash Mixing tank, Clariflocculator ,Chlorination system and Clear water Sump & pump house.
	<p>Materials: All civil structures are made of reinforced cement concrete, and mechanical units like the of HYSD steel.</p> <p>Process: the water from raw water pumping main enters into the inlet, and the first unit is cascade aerator. After aeration water</p>

	passes through Parshall flume, where flow is measured. Coagulant and flocculent chemicals (alum and Lime) are added to the water, and mixed in the flash mixer tank, and then flows into clariflocculator then and Clarified water pumped to the city for filtration
Backwash water and sludge management	- the settled sludge from the bottom of the clarifier tank is periodically flushed into the drains.
Filtration Plant at Bendoor 1974 Scheme	Clarified water flows into sand filters (4 numbers) for filtration and the filtered water is disinfected with chlorine and allowed to flow into clear water tank from where water pumped into service reservoirs for distribution.
Backwash water and sludge management	-50% of filter backwash water is let into open drains and another 50% water used by Horticulture Department for gardening purpose. -there is no recycling of backwash into inlet - the settled sludge from the bottom of the Filter bed is periodically flushed into the drains.
Chlorination system	Chlorine dosage system is not properly working; there are no safety precautions in place. Chlorine cylinders (900 kg tonners) are used which is placed at one side of the room. The dosage system is not properly functional; no safety systems like leak detection or emergency alarm or lime slurry pit available in the facility. Operators are not aware of safety measures or actions to be performed during any emergency.
Filtration Plant at Panambur 1974 Scheme	Clarified water flows into sand filters (4 numbers) for filtration and the filtered water is disinfected with chlorine and allowed to flow into clear water tank from where water pumped into service reservoirs for distribution.
Backwash water and sludge management	-filter backwash water is let into open drains as there is no recycling of backwash into inlet - the settled sludge from the bottom of the clarifier tank is periodically flushed into the drains. -the untreated backwash and sludge flushing ultimately reaches and disposed off into drain.
Chlorination system	Chlorine dosage system is not properly working; there are no safety precautions in place.

	The dosage system is not properly functional; no safety systems like leak detection or emergency alarm or lime slurry pit available in the facility. Operators are not aware of safety measures or actions to be performed during any emergency.
--	--

Appendix 14: Sample chance find protocol

Introduction

Project town being a heritage town, there are possibility of any chance finds (artefacts) recovery during excavations. Contractors working at heritage towns must take additional care not to destroy or damage historic features during excavations. There may be many buried historic features in heritage towns such as – idols, toys, wells, ancient drains, remains of buildings, other walls, grain pits, etc. Every care must be made not to destroy these during excavations.

Excavator drivers need to be instructed to be aware of hitting buried features and that they must be investigated before continuing work. When features are encountered during mechanical excavation, work should stop and the PIU/Consultants engineers must be informed immediately so that they can be inspected at the first opportunity.

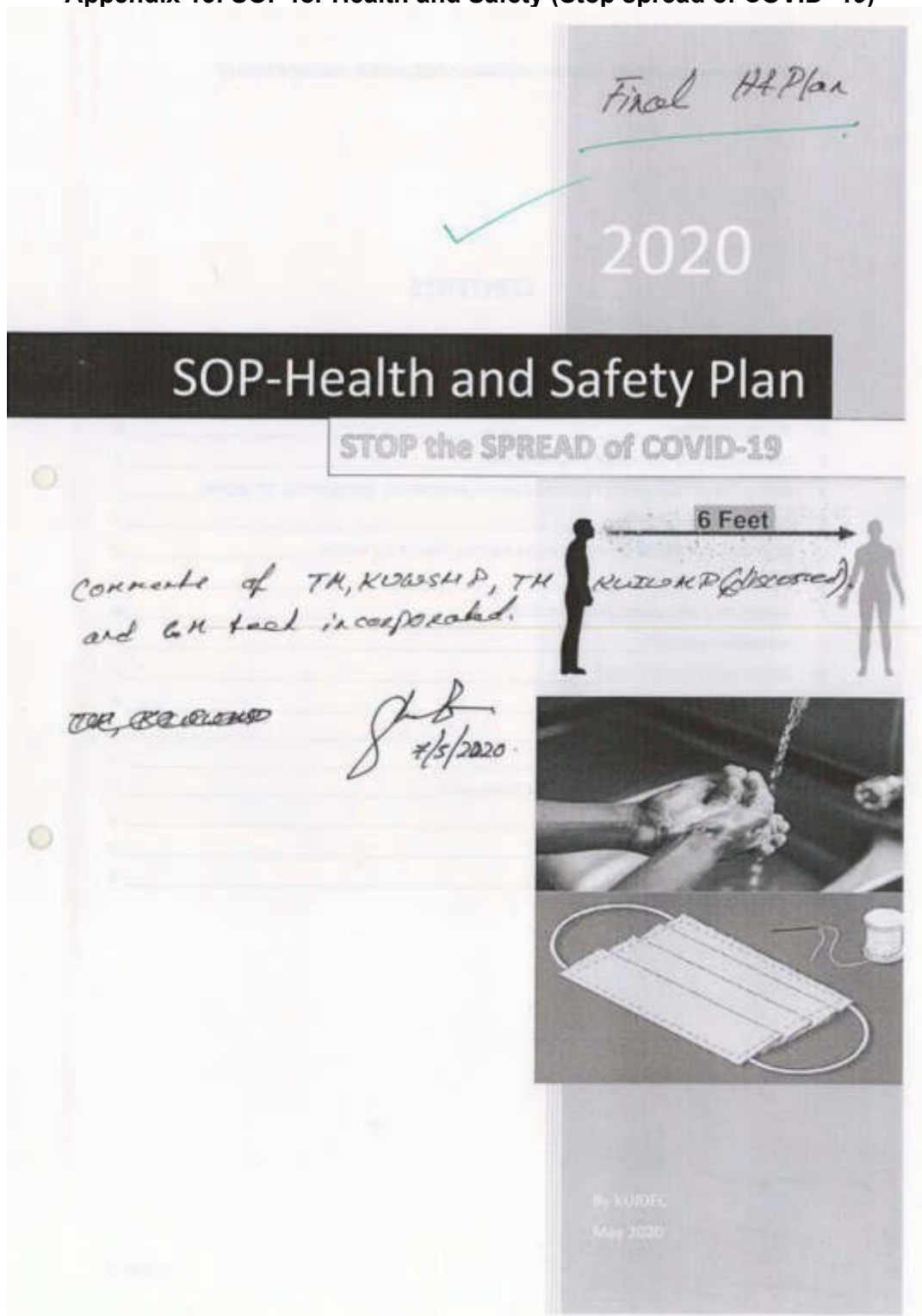
When historic features such as walls, brick constructions and other features are encountered during excavation the excavation must be stopped immediately and the PIU/Consultants must be informed immediately.

- 1.1 **Contractors' instruction:** As soon as contractor recovers any chance find during any excavation works for pipe laying, they should immediately inform PIU/Consultant present in town about the chance find recovery. Immediately stop the excavation activity near point of recovery. After PIU/consultants engineers come at site, contractor should follow cleaning and photography in supervision of PIU/Consultant engineers.
- 1.2 **Cleaning** - When a feature/chance find is discovered it must be defined by careful cleaning. Roots must be removed and dirt must be carefully cleaned away. The section or trench base should also be cleaned back for a little distance around the feature.
- 1.3 **Record photography** – When the feature is clean good photography should be taken – vertical and face-on shots and a few general shots of the feature, also showing its position in relation to surrounding features, buildings, etc. The photographed should be catalogued (date, location, direction of shot)
- 1.4 **Drawn record** -When features/chance finds are revealed a drawn record should also be made.
 - a. General location record – measuring its position and orientation within the protected site / in relation to surrounding structures
 - b. Record drawings – detail drawings made in plan and section/profile. The extent (edges) of the feature should be drawn and the level of the existing ground surface and the top and base of the feature should be recorded. These levels should be marked on the drawings. The drawings should include detail of the construction of the feature. Perspective sketches could also be made if necessary. Explanatory notes can also be put on the drawings.
- 1.5 **Reporting finds** - When finds are made these should be reported to PIU/Consultants. Photographs and record drawings should be sent.
- 1.6 **Discovery of historic objects** - When clearance and excavation takes place artifacts and historic objects are sometimes found. These should be recovered and kept in a safe place. The place of discovery should be recorded and each find given a number and tag tied to the find with the same number on it. A list of the finds should be kept (with the find

No. And place of discovery and date of discovery recorded).

- 1.7 ***PIU/Consultants responsibility-*** PIU/Consultants should inform in written to the State Archaeological Department at the earliest with photographs and request to Archaeology Department to visit the site and hand over the chance finds to them.

Appendix 15: SOP for Health and Safety (Stop spread of COVID -19)



CONTENTS

1	INTRODUCTION	2
2	PRINCIPLES OF WORKER PROTECTION	3
3	MAXIMUM PRECAUTION FOR PERSONS/LABOURERS REPORTING TO WORK	3
4	COVID-19 Typical Symptoms	3
5	SELF-ATTESTATION BY PERSONS/LABOUR PRIOR TO WORK	3
6	GENERAL DIRECTION	4
7	WORK-SITE PREVENTION PRACTICES	5
8	WASHING FACILITY	6
9	CLEANING PROCEDURES	6
10	LABOUR CAMP	6
10.1	Toilet Facility	7
10.2	Eating/snacks Arrangements	7
10.3	Changing Facilities, Showers and Drying Areas	7
11	UPDATES ON COVID-19	8
12	Training	8
13	Emergency contact	8

Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

1 INTRODUCTION¹

- This document is intended to supplement formal H&S policies, procedures and plans that the contractor/agency has in place for its employees and staff working on KUIDFC projects. Hence, this document is not intended to replace any formalized procedures currently in place for the Contractor. Where this guideline does not meet or exceed the standards put forth by the Contractor, the Contractor shall abide by the most stringent procedure available.
- This approved project specific Health and Safety Plan (H&SP) shall be modified to require that the COVID-19 Officer² at the Contractor's worksite (appointed by Contractor and agreed by PIU) submit a written daily report to the Client's Representative (PIU Head). The COVID-19 Officer shall certify that the Contractor and all subcontractors are in full compliance with these guidelines.
- The COVID-19 officer should be present on site at all times, when the work is on at the premise.
- Any issue of non-compliance with these guidelines shall be a basis for the suspension of work. The Contractor will be required to submit a corrective action plan (on the next day or immediately as per the nature of issue) detailing each issue of non-conformance and a plan to rectify the issue(s). The Contractor will not be allowed to resume work until the plan is approved by the Client (PIU). Any (additional) issues of non-conformance may be subject to action against the Contractor's health & safety/safeguard clauses of the contract.
- Construction sites operating during the Covid-19 pandemic need to ensure that they are protecting their WORKFORCE and minimising the risk of spread of infection.
- This guidance is intended to introduce consistent measures on sites of all sizes in line with the Government's recommendations on social distancing.
- These are exceptional circumstances and the industry must remain abreast of and comply with the latest Government advice on COVID-19 at all times.
- The health and safety requirements of any construction activity must also not be compromised at this time. If an activity cannot be undertaken safely due to a lack of suitably qualified personnel being available or social distancing being implemented, it should not take place.
- It is to be noted that emergency services are also under great pressure and may not be in a position to respond as quickly as usual.
- Sites should remind the workforce at every opportunity of the Worksite Procedures which are aimed at protecting them, their colleagues, their families and the Karnataka population.

If a worksite is not consistently implementing the measures in this document, it may be required to shut down, till corrective measures are implemented and approved by employer.

¹ This document may be made available in the local language, and the salient features would be displayed through signages at the appropriate locations throughout work sites and stretches by the Contractor for wider dissemination and awareness.

² The existing safeguards officer OR health & safety officer OR supervisor of the contractor OR PMC-team member can be designated as COVID-19 officer by undergoing the training available at

(a) <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online-training>

(b) <https://openwho.org/courses/eprotect-acute-respiratory-infections>

(c) <https://openwho.org/courses/COVID-19-IPC-EN>

Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

2 PRINCIPLES OF WORKER PROTECTION

- Consistently practice social distancing
- Cover coughs and sneezes
- Maintain hand hygiene
- Clean surfaces frequently

3 MAXIMUM PRECAUTION FOR PERSONS/LABOURERS REPORTING TO WORK

- IF SICK, STAY HOME!
- IF SICK, GO HOME!
- IF SOMEONE SICK, SEND THEM HOME AND REPORT TO COVID OFFICER !

Contractor to provide face masks (of the type approved by Government for use to protect persons from COVID-19) to all persons working in or visiting the worksite. This along with procedures set out in this document is for maximum precaution to protect all persons/labourers at all times.

4 COVID-19 TYPICAL SYMPTOMS

- Fever
- Cough
- Shortness of Breath
- Sore Throat

All persons at the worksite should have their temperature screened by COVID-19 officer with Infrared Thermometer daily before start of work (handheld non-contact), twice a day (both morning and evening)

5 SELF-ATTESTATION BY PERSONS/LABOUR PRIOR TO WORK

Prior to starting a work (on daily basis), each labour /worker will self-attest to the supervisor:

- no signs of COVID-19 symptoms within the past 24 hours.
- No contact with an individual diagnosed with COVID-19. (contact means living with a positive person, being within 6 ft of positive person OR sharing things of positive person)
- Not undergone quarantine or isolation (in case of any labourer /worker who has been quarantined or isolated previously, the engagement shall be only after obtaining the requisite clearance)

The engagement of workers falling in the high-risk category such as workers over the age of 55 years, with underlying medical conditions or health issues, etc. should be done only after obtaining the requisite clearance from trained and registered medical practitioners.

The self-attestation would be verified in collaboration with trained and registered medical practitioners deployed at site through discussions with laborers /workers and/or preliminary checks such as temperature checks, etc. prior to their engagement at site.

In addition, the Contractor shall mandatorily follow all medical test requirements for the workers prior to their engagement and/or mobilization at site as per the guidelines issued by the Central and State government agencies and WHO from time to time.

Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

Persons/Labourers showing COVID-19 symptoms or not providing self-attestation shall be directed to leave the work site and transported to/report to the fever clinic/quarantine centre immediately, at the cost of contractor. Labour not to return to the work site until cleared by fever clinic/quarantine centre.

6 GENERAL DIRECTION

- No handshake, Only Namaste
- Non-essential physical work that requires close contact between workers should not be carried out
- Work requiring physical contact should not be carried out. Scope for automation/mechanisation shall be explored in such cases
- Plan all other work to avoid contact between workers and/or ensure social distancing
- Wash hands often (every 1-2 hrs or as frequently as possible) with soap for at least 20 seconds
- Use hand sanitizer
- No person should enter the work site other than the authorized persons mentioned by supervisor during start of work
- Everyone at work site should practice social distancing by maintaining a minimum distance of 6-feet from others³ at all times to eliminate the potential of cross contamination.
- Avoid face to face meetings – critical situations requiring in-person discussion must follow social distancing i.e., 6 ft from others.
- Conduct all meetings via conference calls/video, if possible. Do not convene meetings of more than 10 people. Recommend use of cell phones, texting, web meeting sites and conference calls for project discussion
- All individual work group meetings/ talks should follow social distancing
- At each job briefing /toolbox talk, employees are to be asked if they are experiencing any symptoms, and are sent home if they reply in positive
- Each worksite should display laminated COVID-19 safety guidelines and handwashing instructions at suitable locations
- All restroom /toilet facilities should be cleaned (min twice a day), and handwashing facility must be provided with soap, hand sanitizer and paper towels
- All surfaces should be regularly cleaned, including mobiles, tabletops /surfaces, door handles, laptops, records, etc.
- All common areas and meeting areas are to be regularly cleaned (min twice a day) and disinfected at least twice a day
- All persons to maintain their own water bottle, and should not be shared.
- To avoid external contamination, it is recommended everyone bring food from home
- Please maintain Social Distancing separation during breaks and lunch.
- Cover coughing or sneezing with a tissue, then throw the tissue in the trash and wash hands, if no tissue is available then cough /sneeze into your upper sleeves or elbow. Do not cough or sneeze into your hands.
- Clean your hands after coughing or sneezing thoroughly by using soap and water (minimum for 20 seconds). If soap and water are not available, please use a hand sanitizer. The Contractor shall ensure adequate quantities of sanitizer and soap are

³ Social distancing may not be practical for undertaking certain specific activities within the workplace. It is therefore important to review the work method statements for these types of activities to assess impact and how to find safe ways of doing in line with best available guidance.

Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

made available at all locations including site offices, meeting rooms, corridors, washrooms /toilets, etc. as appropriate.

- Avoid touching eyes, nose, and mouth with your hands
- To avoid sharing germs, please clean up after Yourself. DO NOT make others responsible for moving, unpacking and packing up your personal belongings
- If you or a family member is feeling ill, stay home!⁴
- Work schedules are adjusted to provide time for proper cleaning and disinfecting as required.
- Ensure separate disposal of used masks/used hand tissues, etc.

7 WORK-SITE PREVENTION PRACTICES

- At the start of each shift, confirm with all employees that they are healthy and inform all workers of reusable and disposable PPE.
- Outside person(s) should be strictly prohibited at worksite
- All construction workers will be required to wear cut-resistant gloves or the equivalent.
- Use of eye protection (reusable safety goggles/face shields) is recommended. The supply of eye protection equipment to the workers is considered as a standard part of PPE during construction works.
- In work conditions where required **social distancing is impossible** to achieve, such employees shall be supplied with standard face mask, gloves, and eye protection.
- All employees shall drive to work site in a single occupant vehicle. Staff shall not ride together in the same vehicle
- When entering a machine or vehicle which you are not sure whether you were the last person to enter, make sure that you wipe down the interior and door handles with disinfectant (with 1% sodium hypochlorite solution daily) prior to entry. Adequate quantity of the disinfectant shall be provided by the Contractor at all such site-specific locations.
- Workers should maintain separation of 6' from each other.
- Multi person activities will be limited where feasible (two persons lifting activities)
- Gathering places on the site such as sheds and/or break areas will be eliminated, and instead small break areas will be used with seating limited to ensure social distancing.
- Contact the cleaning person of the worksite and ensure proper COVID-19 sanitation processes. Increase cleaning/disinfection visits to at least 2 times a day. Cleaning person(s) to be provided with gloves, gown and face mask for each cycle of cleaning. The Contractor shall make available adequate supply of PPE and chemicals while the threat of COVID-19 continues.
- Clean all high contact surfaces a minimum of twice a day in order to minimize the spread of germs in areas that people touch frequently. This includes but is not limited to desks, laptops and vehicles
- All employees to maintain good health by getting adequate sleep; eating a balanced, healthy diet, avoid alcohol/tobacco; and consume plenty of fluids.
- Continuation of works in construction project with workers available on site and no workers to be brought in from outside, without prior approval of Deputy Commissioner of originating and destination locations.

⁴ The workers with no sick-leave would be supported with additional leave while affected by COVID-19 by the Contractor. The workers who have to stay home because of COVID19 affected family member(s), the Contractor shall pay for the days for staying away from the work.

Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

- The site offices shall have adequate ventilation. The air conditioning or ventilation systems installed at the site offices would have high-efficiency air filters to reduce the risk of infection. The frequency of air changes may be increased for areas where close personal proximity cannot be fully prevented such as control rooms, elevators, waiting rooms, etc.
- The Contractor shall carry out contactless temperature checks for the workers prior to site entrance, during working hours and after site works to identify persons showing signs of being unwell with the COVID-19 symptoms

8 WASHING FACILITY

- All worksites should have access to toilet and hand washing facility.
- Providing hand cleaning facilities at entrances and exits. There should be soap and water wherever possible or hand sanitiser if water is not available
- Washing facility with hot water, and soap at fire hydrants or other water sources to be used for frequent handwashing for all onsite employees
- All onsite workers must help to maintain and keep stations clean
- If a worker notices soap or towels are running low or out, immediately notify supervisors. Proactively supervisor should make sure shortage situation never occurs.
- Garbage bins to be placed next to the hand wash facility for discarding of used tissues/towels with regular removal and disposal facility (end of each day)

9 CLEANING PROCEDURES

Increase cleaning/disinfection visits to at least 2 times a day. Cleaning person(s) to be provided with gloves, gown and face mask for each cycle of cleaning.

Each worksite should have enhanced cleaning and disinfection procedures that are posted and shared including sheds, gates, equipment, vehicles, etc. and shall be posted at all entry points to the sites, and throughout the project site. These include common areas and high touch points like

- Taps and washing facilities
- Toilet flush and seats
- Door handles and push plates
- Handrails on staircases and corridors
- Lift and hoist controls
- Machinery and equipment controls
- Food preparation and eating surfaces
- Telephone equipment / mobiles
- Keyboards, photocopiers and other office equipment

Re-usable PPE should be thoroughly cleaned after use and not shared between workers

10 LABOUR CAMP

Contractor shall follow a zero-tolerance policy on wearing of masks.

Masks (homemade⁵ can be thought of) to be provided to all the persons/labourers for use at the camp site as well as at the worksite. Increase cleaning/disinfection visits to at least 2 times

⁵ Advisory on use of Homemade Protective Cover for Face & Mouth by GOI

Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

a day. Cleaning person(s) to be provided with disposable gloves, gown and face mask for each cycle of cleaning.

10.1 Toilet Facility

- Restrict the number of people using toilet facility at any one time e.g. appoint one welfare attendant among the labours.
- Wash hands before and after using the facilities
- Enhance the cleaning regimes for toilet facilities particularly door handles, locks and the toilet flush
- Portable toilets should be avoided wherever possible, but where in use these should be cleaned and emptied more frequently
- Provide suitable and sufficient rubbish bins for hand towels with regular removal and disposal.

10.2 Eating/snacks Arrangements

- With eateries having been closed (restricted) across Karnataka, providing permanent (till society is safe from COVID-19) on-camp/off-camp cook/helpers can be implemented. Make sure that the "Guidelines for food handling, preparation and distribution during COVID-19" and its regular updates are being followed.
- Whilst there is a requirement for construction camps to provide a means of heating food and making hot water, these are exceptional circumstances and where it is not possible to introduce a means of keeping equipment clean between use, etc. must be removed from use.
- Contractor to arrange all daily need items and grocery at site itself and no worker is allowed to go to shops for daily need items.
- Dedicated eating areas should be identified on camp to reduce food waste and contamination
- Break times should be staggered to reduce congestion and contact at all times
- Hand cleaning facilities or hand sanitiser should be available at the entrance of any room where people eat and should be used by workers when entering and leaving the area
- Workers should sit 2 metres apart from each other whilst eating and avoid all contact
- Where catering is provided on camp, it should provide pre-prepared and wrapped food only
 - Payments should be taken by contactless options wherever possible
 - Crockery, eating utensils, cups etc. should be avoided wherever possible
- Drinking water should be provided with enhanced cleaning measures of the tap mechanism introduced
- Tables should be cleaned between each use
- All rubbish should be put straight in the bin and not left for someone else to clear up; only covered pedal operated bins should be used and the bins should be cleared and cleaned regularly, with strict adherence to safety protocols for disposal and hygiene maintenance (including proper PPE's such as gloves, mask and apron worn by the waste handler/cleaner and disposal at a designated place);
- All areas used for eating must be thoroughly cleaned at the end of each break and shift, including chairs, door handles, etc.

10.3 Changing Facilities, Showers and Drying Areas

- Introduce staggered start and finish times to reduce congestion and contact at all times
- Introduce enhanced cleaning of all facilities throughout the day and at the end of each day

Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

- Consider increasing the number or size of facilities available on camp if possible
- Based on the size of each facility, determine how many people can use it at any one time to maintain a distance of two metres
- Provide suitable and sufficient garbage bins in these areas with regular removal and disposal.
- Visitor log should be strictly maintained that the labour camp.

COVID-19 officer will ensure compliance with prevention issues at the labour camp(s).

11 UPDATES ON COVID-19

The Contractor shall be in touch with the Department of Health & Family Welfare and Labour Department to identify any potential worksite exposures relating to COVID-19, including:

- Strictly follow the guidelines issues by Ministry of health and OSHA
- Other workers, vendors, inspectors, or visitors to the worksite with close contact to the individual
- Labour Camps / Work areas such as designated workstations or rooms /sheds
- Work tools and equipment
- Common areas such as break rooms, tables and sanitary facilities
- Take up insitu health check up camps

Also refer the following websites from time to time for regular updates.

<https://www.mohfw.gov.in/>

<https://karunadu.karnataka.gov.in/hfw/Pages/home.aspx>

This document can be updated from time to time based on the advisories or directions of the Govt.

12 TRAINING

- RPMU/PIU to ensure all workers get training on above requirements before start of any construction activity
- During construction period frequent visual and verbal reminders to workers can improve compliance with hand hygiene practices and thus reduce rates of infection. Handwashing posters should also be displayed at work site and labour camps

13 EMERGENCY CONTACT

- Provide emergency contact number(s) at work site and labour camp for reporting COVID-19 symptoms

Ensure all staff and personal use enrol and use the Aarogya Setu app, recommended by GOI for tracking COVID-19 patients.

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KUIDFC-8

Appendix 16 : WHO Interim Guidance on Health, Sanitation, Hygiene, and Waste Management for the COVID19 virus



Water, sanitation, hygiene, and waste management for the COVID-19 virus

Interim guidance
19 March 2020

Background

This interim guidance supplements the infection prevention and control (IPC) documents by summarizing WHO guidance on water, sanitation and health care waste relevant to viruses, including coronaviruses. It is intended for water and sanitation practitioners and providers and health care providers who want to know more about water, sanitation and hygiene (WASH) risks and practices.

The provision of safe water, sanitation, and hygienic conditions is essential to protecting human health during all infectious disease outbreaks, including the COVID-19 outbreak. Ensuring good and consistently applied WASH and waste management practices in communities, homes, schools, marketplaces, and health care facilities will help prevent human-to-human transmission of the COVID-19 virus.

The most important information concerning WASH and the COVID-19 virus is summarized here.

- Frequent and proper hand hygiene is one of the most important measures that can be used to prevent infection with the COVID-19 virus. WASH practitioners should work to enable more frequent and regular hand hygiene by improving facilities and using proven behavior-change techniques.
- WHO guidance on the safe management of drinking-water and sanitation services applies to the COVID-19 outbreak. Extra measures are not needed. Disinfection will facilitate more rapid die-off of the COVID-19 virus.
- Many co-benefits will be realized by safely managing water and sanitation services and applying good hygiene practices.

Currently, there is no evidence about the survival of the COVID-19 virus in drinking-water or sewage. The morphology and chemical structure of the COVID-19 virus are similar to those of other human coronaviruses for which there are data about both survival in the environment and effective inactivation measures. This document draws upon the evidence base and WHO guidance on how to protect against viruses in sewage and drinking-water. This document will be updated as new information becomes available.

1. COVID-19 transmission

There are two main routes of transmission of the COVID-19 virus: respiratory and contact. Respiratory droplets are generated when an infected person coughs or sneezes. Any person who is in close contact with someone who has respiratory symptoms (sneezing, coughing) is at risk of being exposed to potentially infective respiratory droplets.¹ Droplets may also land on surfaces where the virus could remain viable; thus, the immediate environment of an infected individual can serve as a source of transmission (contact transmission).

Approximately 2–10% of cases of confirmed COVID-19 disease present with diarrhoea,^{2,4} and two studies detected COVID-19 viral RNA fragments in the faecal matter of COVID-19 patients.^{5,6} However, only one study has cultured the COVID-19 virus from a single stool specimen.⁷ There have been no reports of faecal–oral transmission of the COVID-19 virus.

2. Persistence of the COVID-19 virus in drinking-water, faeces and sewage and on surfaces.

Although persistence in drinking-water is possible, there is no evidence from surrogate human coronaviruses that they are present in surface or groundwater sources or transmitted through contaminated drinking water. The COVID-19 virus is an enveloped virus, with a fragile outer membrane. Generally, enveloped viruses are less stable in the environment and are more susceptible to oxidants, such as chlorine. While there is no evidence to date about survival of the COVID-19 virus in water or sewage, the virus is likely to become inactivated significantly faster than non-enveloped human enteric viruses with known waterborne transmission (such as adenoviruses, norovirus, rotavirus and hepatitis A). For example, one study found that a surrogate human coronavirus survived only 2 days in dechlorinated tap water and in hospital wastewater at 20°C.⁸ Other studies concur, noting that the human coronaviruses transmissible gastroenteritis coronavirus and mouse hepatitis virus demonstrated a 99.9% die-off in from 2 days⁹ at 23°C to 2 weeks¹⁰ at 25°C. Heat, high or low pH, sunlight, and common disinfectants (such as chlorine) all facilitate die off.

It is not certain how long the virus that causes COVID-19 survives on surfaces, but it seems likely to behave like other coronaviruses. A recent review of the survival of human

coronaviruses on surfaces found large variability, ranging from 2 hours to 9 days.¹¹ The survival time depends on a number of factors, including the type of surface, temperature, relative humidity, and specific strain of the virus. The same review also found that effective inactivation could be achieved within 1 minute using common disinfectants, such as 70% ethanol or sodium hypochlorite (for details, see Cleaning practices).

3. Keeping water supplies safe

The COVID-19 virus has not been detected in drinking-water supplies, and based on current evidence, the risk to water supplies is low.¹² Laboratory studies of surrogate coronaviruses that took place in well-controlled environments indicated that the virus could remain infectious in water contaminated with faeces for days to weeks.¹⁰ A number of measures can be taken to improve water safety, starting with protecting the source water; treating water at the point of distribution, collection, or consumption; and ensuring that treated water is safely stored at home in regularly cleaned and covered containers.

Conventional, centralized water treatment methods that use filtration and disinfection should inactivate the COVID-19 virus. Other human coronaviruses have been shown to be sensitive to chlorination and disinfection with ultraviolet (UV) light.¹³ As enveloped viruses are surrounded by a lipid host cell membrane, which is not robust, the COVID-19 virus is likely to be more sensitive to chlorine and other oxidant disinfection processes than many other viruses, such as coxsackieviruses, which have a protein coat. For effective centralized disinfection, there should be a residual concentration of free chlorine of ≥ 0.5 mg/L after at least 30 minutes of contact time at pH < 8.0 .¹² A chlorine residual should be maintained throughout the distribution system.

In places where centralized water treatment and safe piped water supplies are not available, a number of household water treatment technologies are effective in removing or destroying viruses, including boiling or using high-performing ultrafiltration or nanomembrane filters, solar irradiation and, in non-turbid waters, UV irradiation and appropriately dosed free chlorine.

4. Safely managing wastewater and faecal waste

There is no evidence that the COVID-19 virus has been transmitted via sewerage systems with or without wastewater treatment. Further, there is no evidence that sewage or wastewater treatment workers contracted the severe acute respiratory syndrome (SARS), which is caused by another type of coronavirus that caused a large outbreak of acute respiratory illness in 2003. As part of an integrated public health policy, wastewater carried in sewerage systems should be treated in well-designed and well-managed centralized wastewater treatment works. Each stage of treatment (as well as retention time and dilution) results in a further reduction of the potential risk. A waste stabilization pond (an oxidation pond or lagoon) is generally considered a practical and simple wastewater treatment technology particularly well suited to destroying pathogens, as relatively long retention times (20 days or longer) combined with sunlight, elevated pH levels, biological activity, and other factors serve to accelerate pathogen destruction. A final disinfection step may be considered if existing wastewater treatment plants are not optimized to remove viruses. Best practices for protecting the health of workers at sanitation treatment facilities should

be followed. Workers should wear appropriate personal protective equipment (PPE), which includes: protective outerwear, gloves, boots, goggles or a face shield, and a mask; they should perform hand hygiene frequently, and they should avoid touching eyes, nose, and mouth with unwashed hands.

WASH in health care settings

Existing recommendations for water, sanitation and hygiene measures in health care settings are important for providing adequate care for patients and protecting patients, staff, and caregivers from infection risks.¹⁴ The following actions are particularly important: (i) managing excreta (faeces and urine) safely, including ensuring that no one comes into contact with it and that it is treated and disposed of correctly; (ii) engaging in frequent hand hygiene using appropriate techniques; (iii) implementing regular cleaning and disinfection practices; and (iv) safely managing health care waste. Other important measures include providing sufficient safe drinking-water to staff, caregivers, and patients; ensuring that personal hygiene can be maintained, including hand hygiene, for patients, staff and caregivers; regularly laundering bedsheets and patients' clothing; providing adequate and accessible toilets (including separate facilities for confirmed and suspected cases of COVID-19 infection); and segregating and safely disposing of health care waste. For details on these recommendations, please refer to Essential environmental health standards in health care.¹⁴

1. Hand hygiene practices

Hand hygiene is extremely important. Cleaning hands with soap and water or an alcohol-based hand rub should be performed according to the instructions known as "My 5 moments for hand hygiene".¹⁵ If hands are not visibly dirty, the preferred method is to perform hand hygiene with an alcohol-based hand rub for 20–30 seconds using the appropriate technique.¹⁶ When hands are visibly dirty, they should be washed with soap and water for 40–60 seconds using the appropriate technique.¹⁷ Hand hygiene should be performed at all five moments, including before putting on PPE and after removing it, when changing gloves, after any contact with a patient with suspected or confirmed COVID-19 infection or their waste, after contact with any respiratory secretions, before eating, and after using the toilet.¹⁸ If an alcohol-based hand rub and soap are not available, then using chlorinated water (0.05%) for handwashing is an option, but it is not ideal because frequent use may lead to dermatitis, which could increase the risk of infection and asthma and because prepared dilutions might be inaccurate.¹⁹ However, if other options are not available or feasible, using chlorinated water for handwashing is an option.

Functional hand hygiene facilities should be present for all health care workers at all points of care and in areas where PPE is put on or taken off. In addition, functional hand hygiene facilities should be available for all patients, family members, and visitors, and should be available within 5 m of toilets, as well as in waiting and dining rooms and other public areas.

2. Sanitation and plumbing

People with suspected or confirmed COVID-19 disease should be provided with their own flush toilet or latrine that has a door that closes to separate it from the patient's room. Flush toilets should operate properly and have functioning drain traps. When possible, the toilet should be flushed with the lid down to prevent droplet splatter and aerosol clouds. If it is not possible to provide separate toilets, the toilet should be cleaned and disinfected at least twice daily by a trained cleaner wearing PPE (gown, gloves, boots, mask, and a face shield or goggles). Further, and consistent with existing guidance, staff and health care workers should have toilet facilities that are separate from those used by all patients.

WHO recommends the use of standard, well-maintained plumbing, such as sealed bathroom drains, and backflow valves on sprayers and faucets to prevent aerosolized faecal matter from entering the plumbing or ventilation system,²⁰ together with standard wastewater treatment.²¹ Faulty plumbing and a poorly designed air ventilation system were implicated as contributing factors to the spread of the aerosolized SARS coronavirus in a high-rise apartment building in Hong Kong in 2003.²² Similar concerns have been raised about the spread of the COVID-19 virus from faulty toilets in high-rise apartment buildings.²³ If health care facilities are connected to sewers, a risk assessment should be conducted to confirm that wastewater is contained within the system (that is, the system does not leak) before its arrival at a functioning treatment or disposal site, or both. Risks pertaining to the adequacy of the collection system or to treatment and disposal methods should be assessed following a safety planning approach,²⁴ with critical control points prioritized for mitigation.

For smaller health care facilities in low-resource settings, if space and local conditions allow, pit latrines may be the preferred option. Standard precautions should be taken to prevent contamination of the environment by excreta. These precautions include ensuring that at least 1.5 m exists between the bottom of the pit and the groundwater table (more space should be allowed in coarse sands, gravels, and fissured formations) and that the latrines are located at least 30 m horizontally from any groundwater source (including both shallow wells and boreholes).²⁵ If there is a high groundwater table or a lack of space to dig pits, excreta should be retained in impermeable storage containers and left for as long as feasible to allow for a reduction in virus levels before moving it off-site for additional treatment or safe disposal, or both. A two-tank system with parallel tanks would help facilitate inactivation by maximizing retention times, as one tank could be used until full, then allowed to sit while the next tank is being filled. Particular care should be taken to avoid splashing and the release of droplets while cleaning or emptying tanks.

3. Toilets and the handling of faeces

It is critical to conduct hand hygiene when there is suspected or direct contact with faeces (if hands are dirty, then soap and water are preferred to the use of an alcohol-based hand rub). If the patient is unable to use a latrine, excreta should be collected in either a diaper or a clean bedpan and immediately and carefully disposed of into a separate toilet or latrine used only by suspected or confirmed cases of COVID-19. In all health care settings, including those with suspected or confirmed COVID-19 cases, faeces must be treated as a biohazard and handled as little as possible. Anyone handling

faeces should follow WHO contact and droplet precautions¹⁸ and use PPE to prevent exposure, including long-sleeved gowns, gloves, boots, masks, and goggles or a face shield. If diapers are used, they should be disposed of as infectious waste as they would be in all situations. Workers should be properly trained in how to put on, use, and remove PPE so that these protective barriers are not breached.²⁵ If PPE is not available or the supply is limited, hand hygiene should be regularly practiced, and workers should keep at least 1 m distance from any suspected or confirmed cases.

If a bedpan is used, after disposing of excreta from it, the bedpan should be cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, and then rinsed with clean water; the rinse water should be disposed of in a drain or a toilet or latrine. Other effective disinfectants include commercially available quaternary ammonium compounds, such as cetylpyridinium chloride, used according to manufacturer's instructions, and peracetic or peroxyacetic acid at concentrations of 500–2000 mg/L.¹⁸

Chlorine is ineffective for disinfecting media containing large amounts of solid and dissolved organic matter. Therefore, there is limited benefit to adding chlorine solution to fresh excreta and it is possible that this may introduce risks associated with splashing.

4. Emptying latrines and holding tanks, and transporting excreta off-site.

There is no reason to empty latrines and holding tanks of excreta from suspected or confirmed COVID-19 cases unless they are at capacity. In general, the best practices for safely managing excreta should be followed. Latrines or holding tanks should be designed to meet patient demand, considering potential sudden increases in cases, and there should be a regular schedule for emptying them based on the wastewater volumes generated. PPE (long-sleeved gown, gloves, boots, masks, and goggles or a face shield) should be worn at all times when handling or transporting excreta off-site, and great care should be taken to avoid splashing. For crews, this includes pumping out tanks or unloading pumper trucks. After handling the waste and once there is no risk of further exposure, individuals should safely remove their PPE and perform hand hygiene before entering the transport vehicle. Soiled PPE should be put in a sealed bag for later safe laundering (see Cleaning practices). Where there is no off-site treatment, in-situ treatment can be done using lime. Such treatment involves using a 10% lime slurry added at 1-part lime slurry per 10 parts of waste.

5. Cleaning practices

Recommended cleaning and disinfection procedures for health care facilities should be followed consistently and correctly.¹⁹ Laundry should be done and surfaces in all environments in which COVID-19 patients receive care (treatment units, community care centres) should be cleaned at least once a day and when a patient is discharged.²⁷ Many disinfectants are active against enveloped viruses, such as the COVID-19 virus, including commonly used hospital disinfectants. Currently, WHO recommends using:

- 70% ethyl alcohol to disinfect small areas between uses, such as reusable dedicated equipment (for example, thermometers);
- sodium hypochlorite at 0.5% (equivalent to 5000 ppm) for disinfecting surfaces.

All individuals dealing with soiled bedding, towels, and clothes from patients with COVID-19 infection should wear appropriate PPE before touching soiled items, including heavy duty gloves, a mask, eye protection (goggles or a face shield), a long-sleeved gown, an apron if the gown is not fluid resistant, and boots or closed shoes. They should perform hand hygiene after exposure to blood or body fluids and after removing PPE. Soiled linen should be placed in clearly labelled, leak-proof bags or containers, after carefully removing any solid excrement and putting it in a covered bucket to be disposed of in a toilet or latrine. Machine washing with warm water at 60–90°C (140–194°F) with laundry detergent is recommended. The laundry can then be dried according to routine procedures. If machine washing is not possible, linens can be soaked in hot water and soap in a large drum using a stick to stir and being careful to avoid splashing. The drum should then be emptied, and the linens soaked in 0.05% chlorine for approximately 30 minutes. Finally, the laundry should be rinsed with clean water and the linens allowed to dry fully in sunlight.

If excreta are on surfaces (such as linens or the floor), the excreta should be carefully removed with towels and immediately safely disposed of in a toilet or latrine. If the towels are single use, they should be treated as infectious waste; if they are reusable, they should be treated as soiled linens. The area should then be cleaned and disinfected (with, for example, 0.5% free chlorine solution), following published guidance on cleaning and disinfection procedures for spilled body fluids.²⁷

6. Safely disposing of greywater or water from washing PPE, surfaces and floors.

Current WHO recommendations are to clean utility gloves or heavy duty, reusable plastic aprons with soap and water and then decontaminate them with 0.5% sodium hypochlorite solution after each use. Single-use gloves (nitrile or latex) and gowns should be discarded after each use and not reused; hand hygiene should be performed after PPE is removed. If greywater includes disinfectant used in prior cleaning, it does not need to be chlorinated or treated again. However, it is important that such water is disposed of in drains connected to a septic system or sewer or in a soakaway pit. If greywater is disposed of in a soakaway pit, the pit should be fenced off within the health facility grounds to prevent tampering and to avoid possible exposure in the case of overflow.

7. Safe management of health care waste

Best practices for safely managing health care waste should be followed, including assigning responsibility and sufficient human and material resources to dispose of such waste safely. There is no evidence that direct, unprotected human contact during the handling of health care waste has resulted in the transmission of the COVID-19 virus. All health care waste produced during the care of COVID-19 patients should be collected safely in designated containers and bags, treated, and then safely disposed of or treated, or both, preferably on-site. If waste is moved off-site, it is critical to understand where and how it will be treated and destroyed. All who handle health care waste should wear appropriate PPE (boots, apron, long-sleeved gown, thick gloves, mask, and goggles or a face shield) and perform hand hygiene after removing it. For more information refer to the WHO guidance, Safe management of wastes from health-care activities.²⁸

Considerations for WASH practices in homes and communities.

Upholding best WASH practices in the home and community is also important for preventing the spread of COVID-19 and when caring for patients at home. Regular and correct hand hygiene is of particular importance.

1. Hand hygiene

Hand hygiene in non-health care settings is one of the most important measures that can prevent COVID-19 infection. In homes, schools and crowded public spaces – such as markets, places of worship, and train or bus stations – regular handwashing should occur before preparing food, before and after eating, after using the toilet or changing a child's diaper, and after touching animals. Functioning handwashing facilities with water and soap should be available within 5 m of toilets.

2. Treatment and handling requirements for excreta.

Best WASH practices, particularly handwashing with soap and clean water, should be strictly applied and maintained because these provide an important additional barrier to COVID-19 transmission and to the transmission of infectious diseases in general.¹⁷ Consideration should be given to safely managing human excreta throughout the entire sanitation chain, starting with ensuring access to regularly cleaned, accessible, and functioning toilets or latrines and to the safe containment, conveyance, treatment, and eventual disposal of sewage.

When there are suspected or confirmed cases of COVID-19 in the home setting, immediate action must be taken to protect caregivers and other family members from the risk of contact with respiratory secretions and excreta that may contain the COVID-19 virus. Frequently touched surfaces throughout the patient's care area should be cleaned regularly, such as bedside tables, bed frames and other bedroom furniture. Bathrooms should be cleaned and disinfected at least once a day. Regular household soap or detergent should be used for cleaning first and then, after rinsing, regular household disinfectant containing 0.5% sodium hypochlorite (that is, equivalent to 5000 ppm or 1-part household bleach with 5% sodium hypochlorite to 9 parts water) should be applied. PPE should be worn while cleaning, including mask, goggles, a fluid-resistant apron, and gloves,²⁹ and hand hygiene with an alcohol-based hand rub or soap and water should be performed after removing PPE.

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US Centers for Disease Control and Prevention, United States of America; David Berendes, US Centers for Disease Control and Prevention, United States of America; Lisa Casanova, Georgia State University, United States of America; David Cunliffe, SA Health, Australia; Rick Gelting, US Centers for Disease Control and Prevention, United States of America; Dr Thomas Handzel, US Centers for Disease Control and Prevention, United States of America; Paul Hunter, University of East Anglia, United Kingdom; Ana Maria de Roda Husman, National Institute for Public Health and the Environment, the Netherlands; Peter Maes, Médecins Sans Frontières, Belgium; Molly Patrick, US Centers for Disease Control and Prevention, United States of America; Mark Sobsey, University of North Carolina-Chapel Hill, United States of America.

WHO continues to monitor the situation closely for any changes that may affect this interim guidance. Should any factors change, WHO will issue a further update. Otherwise, this interim guidance document will expire 2 years after the date of publication.



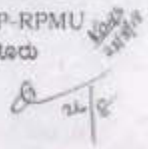
Contributors

This interim guidance was written by staff from WHO and UNICEF. In addition, a number of experts and WASH practitioners contributed. They include Matt Arduino,

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WHO reference number: WHO/2019-nCoV/IPC_WASH/2020.2

Appendix 17: GRM Notification

	<p>Karnataka Urban Infrastructure Development & Finance Corp. Ltd., Karnataka Integrated Urban Water Management and Investment Programme (KIUWMIP) "Jalashree" - Tranche 2 Regional Programme Management Unit (RPMU), First Floor, Mangalore City Corporation Commercial Complex, Mallikatta Kadri, Mangaluru - 575002 E-mail: jalashreetranche2@kuidf.com Tel: 0824-2981109</p>
<p>No:KIUWMIP/RPMU/CR.88/2017-18 / 389</p>	<p>ದಿನಾಂಕ:23-08-2018</p>
<p>ಬಾಸ್ ಮ್ಯಾನೇಜರ್ ಕರ್ನಾಟಕ ನಗರ ಮೂಲಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ ಮತ್ತು ಹಣಕಾಸು ನಿಗಮ ನಿಯಮಿತ ನಗರಾಭಿವೃದ್ಧಿ ಭವನ, # 22, 17 ನೇ 'ಎ' ಕ್ರಾಸ್ ರಸ್ತೆ, ಹಳೆ ಮದ್ರಾಸ್ ರಸ್ತೆ, ಇಂದಿರಾ ನಗರ, 2ನೇ ಹಂತ ಬಿಎಂಟಿಸಿ ಬಸ್ ಡಿಪೋ ಹತ್ತಿರ, ಬೆಂಗಳೂರು-560038. ಮಾನ್ಯರೇ,</p>	
<p>ವಿಷಯ: ಕೈಮಿಪ್ ಟ್ರಾಂಚ್ -2 ಯೋಜನೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ನಗರಾದಳಿತ ಸಂಸ್ಥೆಗಳ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಕೈಗೊಳ್ಳುವ ಕಾಮಗಾರಿಗಳ ಅನುಷ್ಠಾನ ಸಮಯದಲ್ಲಿ ಉದ್ಭವಿಸಬಹುದಾದ ಸಮಸ್ಯೆಗಳ ಬಗ್ಗೆ ಪಿಲ್ಲಾ ಮಟ್ಟದ "ಕುಂದುಕೊರತೆ ಪರಿಹಾರ ಸಮಿತಿ" ರಚನೆ ವೃದ್ಧೀಕರಿಸುವ ಕುರಿತು.</p>	
<p>ಉಲ್ಲೇಖ: 1) ತಮ್ಮ ಕಛೇರಿಯ ದೂರವಾಣಿ ಕರೆ. ದಿನಾಂಕ: 23-08-2018</p>	
<p>2) ಈ ಕಛೇರಿಯ ಪತ್ರ ಸಂಖ್ಯೆ: KIUWMIP/RPMU/CR.88/2017-18 / 54 ದಿನಾಂಕ: 24-04-2018</p>	
<p>*****</p>	
<p>ಮೇಲಿನ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಪಟ್ಟಂತೆ ಮಂಗಳೂರು, ಉಡುಪಿ, ಕುಂದಾಪುರ ಮತ್ತು ಪುತ್ತೂರು ನಗರಗಳಲ್ಲಿ ಈಗಾಗಲೇ ಕುಂದುಕೊರತೆ ಪರಿಹಾರ ಸಮಿತಿ Grievance Redressal committee (GRC) ಗಳನ್ನು ರಚಿಸಲಾಗಿದೆ. ಕಾಮಗಾರಿ ಪ್ರಾರಂಭಿಸಿದ ನಂತರ ಬರಬಹುದಾದ ದೂರುಗಳು / ಕುಂದುಕೊರತೆಗಳನ್ನು ಪರಿಹರಿಸಲು ಈ ಸಮಿತಿ ಆಸ್ತಿತ್ವದಲ್ಲಿ ಇರುತ್ತದೆ.</p>	
<p>ಈ ಬಗ್ಗೆ ಉಲ್ಲೇಖ(2) ರಂತೆ ದಿನಾಂಕ: 24-04-2018 ರಂದು ತಮ್ಮ ಕಛೇರಿಗೆ ವರದಿ ಸಲ್ಲಿಸಲಾಗಿದೆ. ಅದರ ಪ್ರತಿಯನ್ನು ತಮ್ಮ ದಯಾಪರ ಅವಗಾಹನೆಗಾಗಿ ಇದರೊಂದಿಗೆ ಲಗತ್ತಿಸಿ ಸಲ್ಲಿಸಿದೆ.</p>	
<p>ತಮ್ಮ ವಿಶ್ವಾಸಿ  (ಡಿ. ಮಂಜುನಾಥಯ್ಯ) ಉಪಯೋಜನಾ ನಿರ್ದೇಶಕರು KIUWMIP-RPMU ಮಂಗಳೂರು </p>	



Karnataka Urban Infrastructure Development & Finance Corp. Ltd.,
Karnataka Integrated Urban Water Management and Investment
Programme (KIUWMIP) "Jalasiri" - Tranche 2
Regional Programme Management Unit (RPMU),
First Floor, Mangalore City Corporation Commercial Complex,
Malikatta Kadri, Mangaluru - 575002
E-mail : jalasitranch2dnd@gmail.com Tel 0824 2981109

No: KIUWMIP/RPMU/CR.88/2017-18/54

Date: 24-04-2018

Task Manager,
KUIDFC- KIUWMIP,
Nagarabhirudhi Bhavan, Indiranagar,
Bengaluru 560038
Sir,

Subject : ADB Assisted KIUWMIP-Tranche-2 Mangaluru-"Jalasiri" - Constitution of Grievance Redressal Committee to receive complaints, evaluate concerns and address grievances of the affected person-reg.

Ref: 1) Your office OM No: KUIDFC/KIUWMIP/DLIC/2014-15/228 /1393 Dated: 28/06/2017.

2) This office letter No : KIUWMIP/RPMU/CR-11/2016-17(Land acq GRC)/612

Dated: 16-02-2018 addressed to Deputy Commissioner, D.K, Mangaluru .

3) This office letter No : KIUWMIP/RPMU/CR-13/2016-17(Land acq GRC)/599

Dated : 16-02-2018 addressed to Deputy Commissioner , Udupi.

4) This Office letter No: KIUWMIP/RPMU/CR-88/2016-17(Land acq GRC)/629

Dated : 20-02-2018 addressed to S.L.A.O MCC Mangaluru.

5) This office letter No: KIUWMIP/RPMU/CR-88/2016-17(Land acq GRC)/627

Dated : 20-02-2018 addressed to Asst.Commr, Kundapura.

6) This office letter No: KIUWMIP/RPMU/CR-88/2016-17(Land acq GRC)/613

Dated : 16-02-2018 addressed to Chief Officer , TMC , Kundapura.

7) This office Letter No: KIUWMIP/RPMU/CR-88/2016-17(Land acq GRC)/628

Dated : 20-02-2018 addressed to AC Puttur.

8) Head Office Email message dated : 10.04.2018 11.45AM.

With reference to the above subject, the Grievance Redressal Committees have been formed in Mangaluru , Udupi , Puttur and Kundapura towns to receive complaints, evaluate concerns and address the grievance of Affected Persons (APs) under KIUWMIP Project while executing the works under KIUWMIP Project.

The details of the Committees Formed are as here under:

Grievance Redressal Committee (GRC) of Mangaluru City

1.	Special Land Acquisition Officer Mangaluru City Corporation, Mangaluru	President
2.	Commissioner Mangaluru City Corporation, Mangaluru	Member
3.	Executive Engineer KIUWMIP- PIU, Mangaluru (on behalf of DPD , KIUWMIP - RPMU)	Member Secretary
4.	Representative of PMDCSC (Project Management Design and Construction Supervision Consultant) Mangaluru	Member
5.	NGO / Affected Community member	Member
6.	SDO (Social Development Officer) RPMU- KIUWMIP, Mangaluru	Member

Grievance Redressal Committee (GRC) of Udupi City

1.	Assistant Commissioner Kundapura Sub division, Kundapura	President
2.	Commissioner Udupi City Municipal Council, Udupi	Member
3.	Executive Engineer KIUWMIP- PIU, Udupi (on behalf of DPD, KIUWMIP - RPMU)	Member Secretary
4.	Representative of PMDCSC (Project Management Design and Construction Supervision Consultant) Mangaluru	Member
5.	NGO / Affected Community Member	Member
6.	SDO (Social Development Officer) RPMU- KIUWMIP, Mangaluru	Member

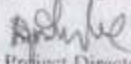
Grievance Redressal Committee (GRC) of Kundapura Town

1.	Assistant Commissioner Kundapura Sub division, Kundapura	President
2.	Chief Officer Town Municipal Council, Kundapura	Member
3.	Asst. Executive Engineer KIUWMIP- PIU, Kundapura (on behalf of DPD, KIUWMIP - RPMU)	Member Secretary
4.	Representative of PMDCSC (Project Management Design and Construction Supervision Consultant) Mangaluru	Member
5.	NGO / Affected Community member	Member
6.	SDO (Social Development Officer) RPMU- KIUWMIP, Mangaluru	Member

Grievance Redressal Committee (GRC) of Puttur City

1.	Assistant Commissioner Puttur Sub division, Puttur	President
2.	Commissioner City Municipal Council, Puttur	Member
3.	Executive Engineer KIUWMIP- PIU, Puttur (on behalf of DPD, KIUWMIP - RPMU)	Member Secretary
4.	Representative of PMDCSC (Project Management Design and Construction Supervision Consultant) Mangaluru	Member
5.	NGO / Affected Community member	Member
6.	SDO (Social Development Officer) RPMU- KIUWMIP, Mangaluru	Member

Yours sincerely


Deputy Project Director
KIUWMIP-RPMU
Mangaluru

No: KIUWMIP/RPMU/CR.88/2017-18/389
23-08-2018

Date:

Task Manager
Karnataka Urban Infrastructure Development Finance Corporation
Urban Development Building, #22,17th F cross road
Old Madras road, Indhiranagar, 2nd Stage
Near BMTTC Bus Depot, Bangalore-560038

Sir,

Sub: Approval for the Grievance redressal committee formation in KIUWMIP Tranche-2 related to municipality during project implementation work arising issues at district level.

Ref: 1) Your office phone call date: 23/05/2018

2) Your office letter no: KIUWMIP/RPMU/CR.88/2017-18/54 date: 24/04/2018

With reference to the above mentioned subject of Mangalore, Udupi, Kundapura and Puttur town already Grievance Redressal committee has created and this is to essence for solving the issues after the start-up of up-coming work complaints and grievances / Grievance Redressal committee.

Report submitted to your office on ref (2)date 24/4/2018 with the attached copies.

Yours Faithfully

D. Manjunathaiah

Deputy Project Director

KIUWMIP/ RPMU

Mangalore

Appendix 18 Zone wise Approved distribution network**Zone 1 Markada**

Zone 1 A-Kunjathbail

Part-A





Part-C



Zone-3 Soojikkal
Part-A

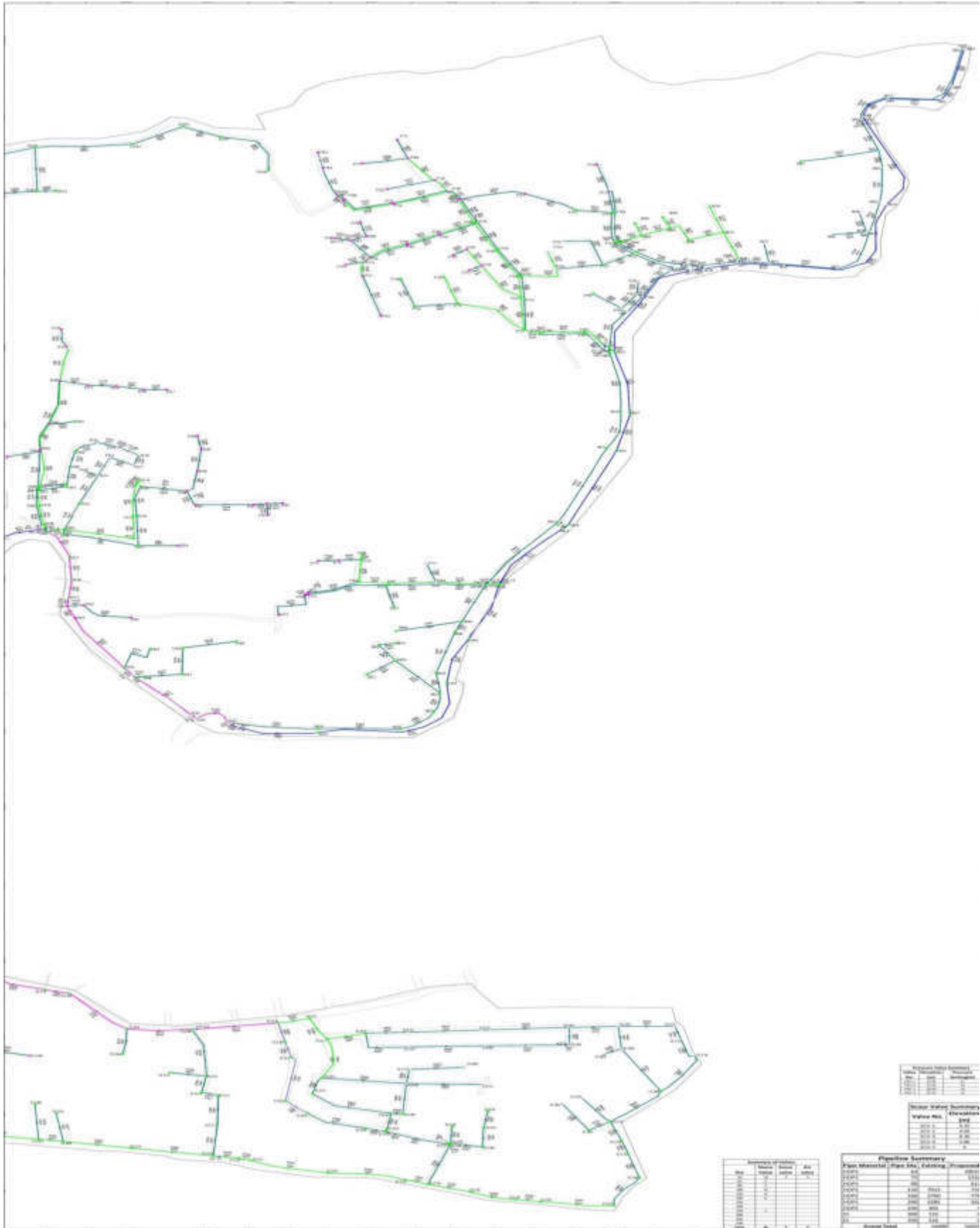


Part-B

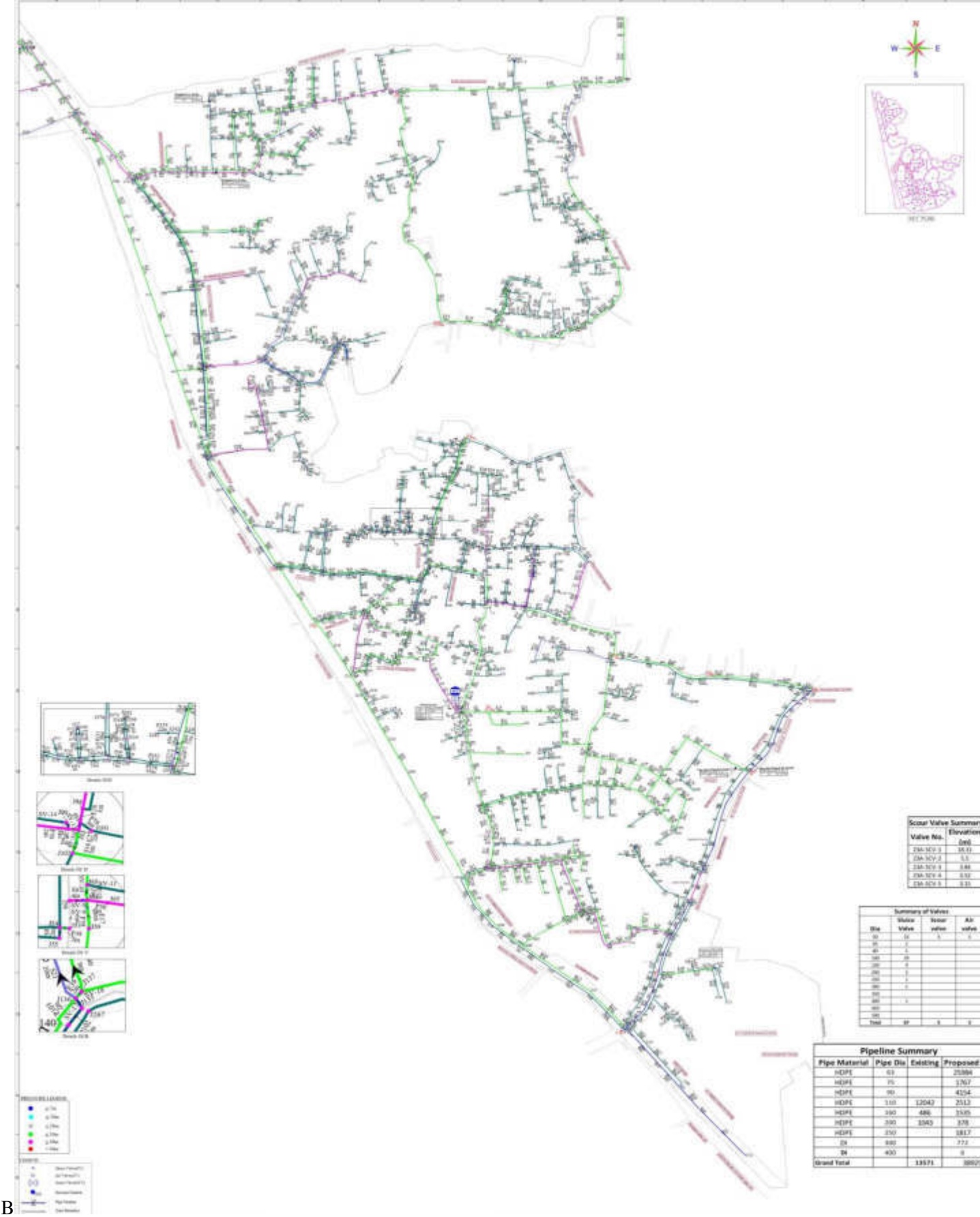


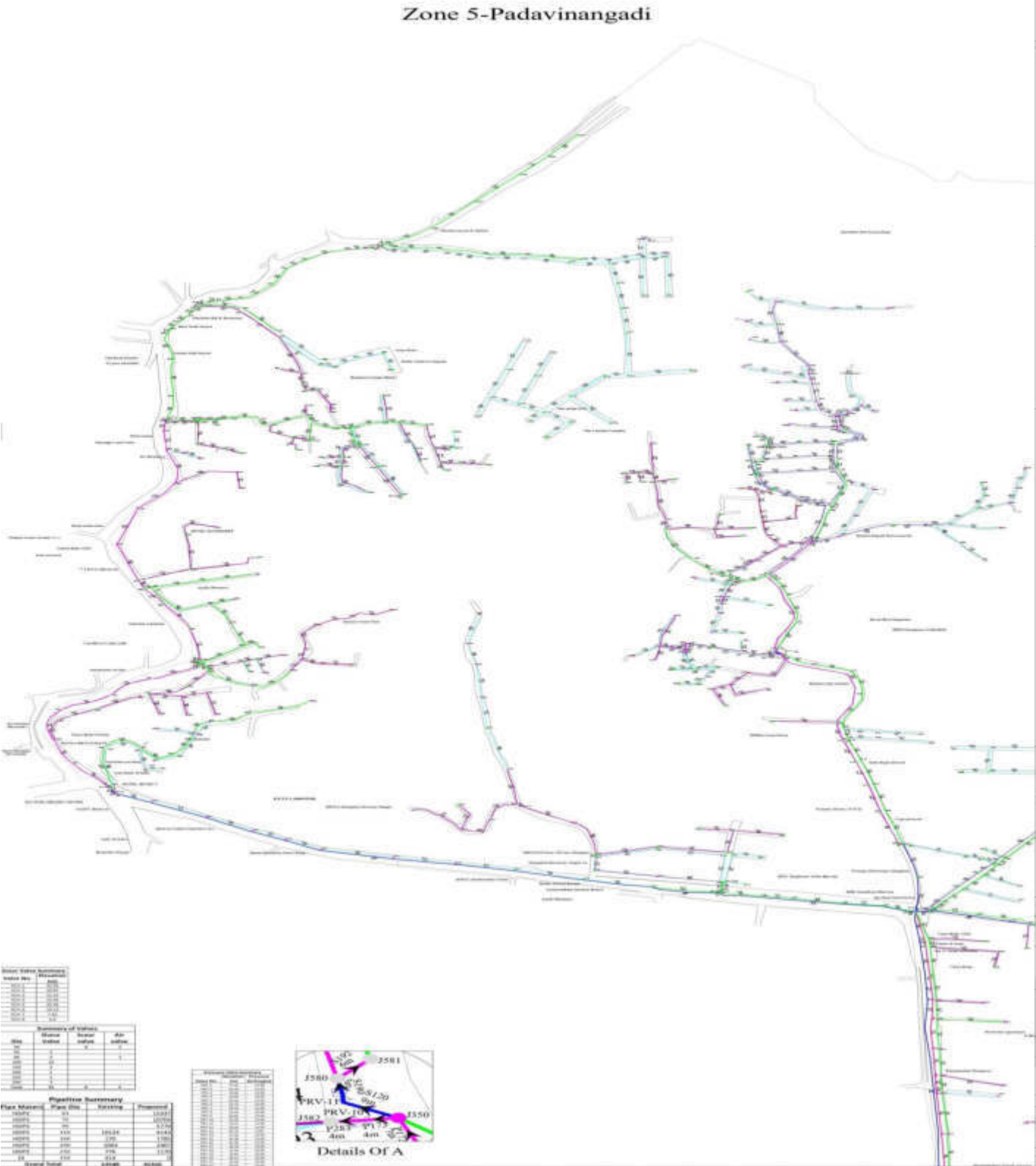
Part C





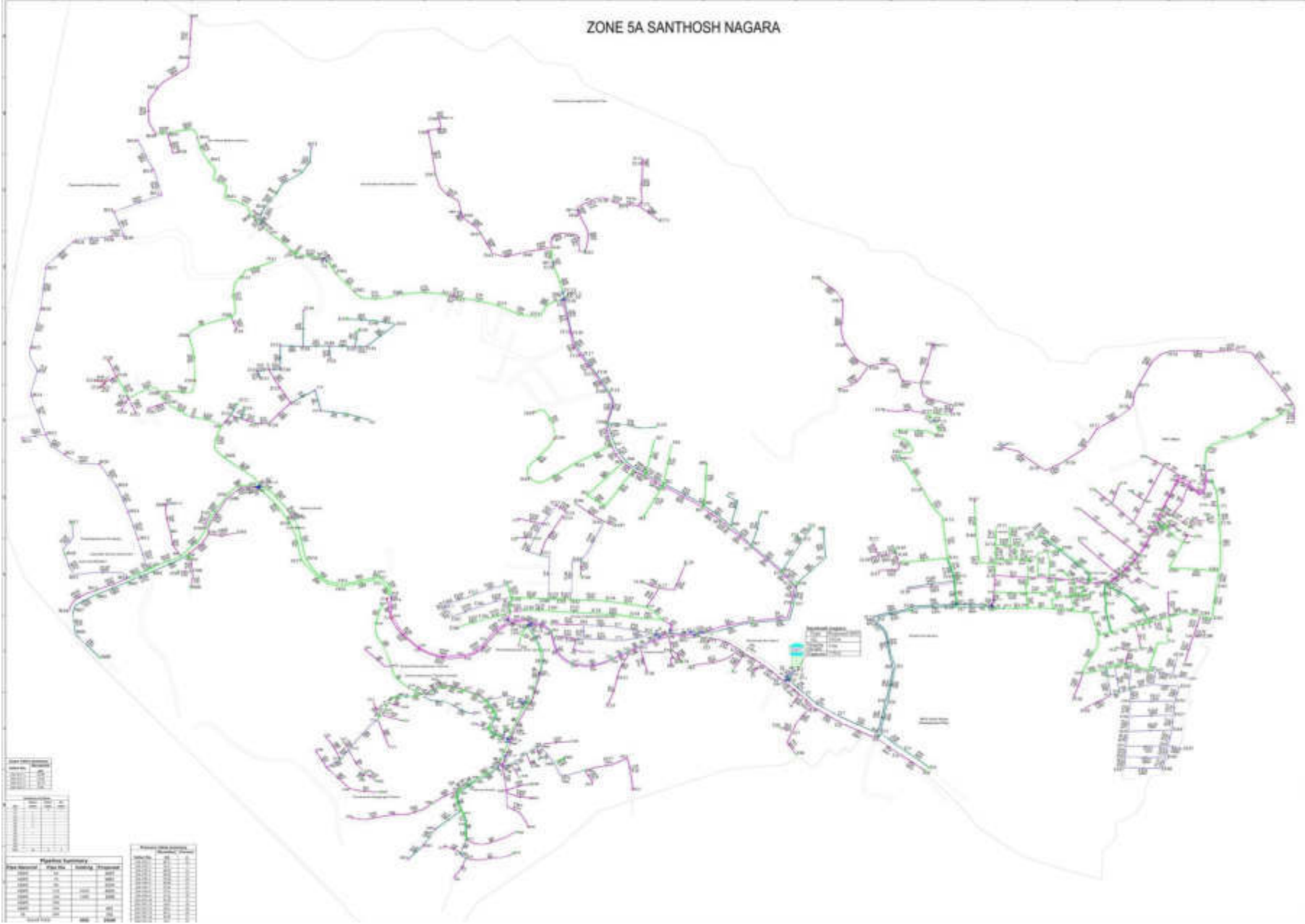








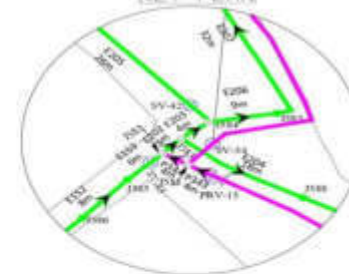
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Part B



KEY PLAN



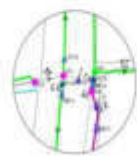
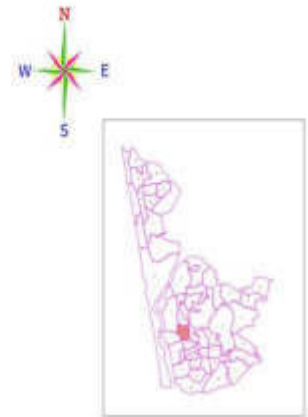
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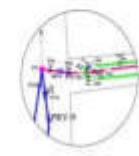
Zone 7B- Chilimbi New



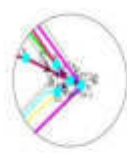
ZONE 7B Chilimbi New



Details of A



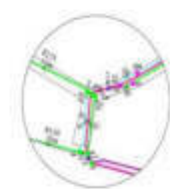
Details of B



Details of C

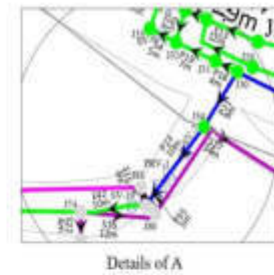
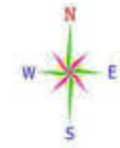


Details of D



Details of E

Zone - 8 Circuit House

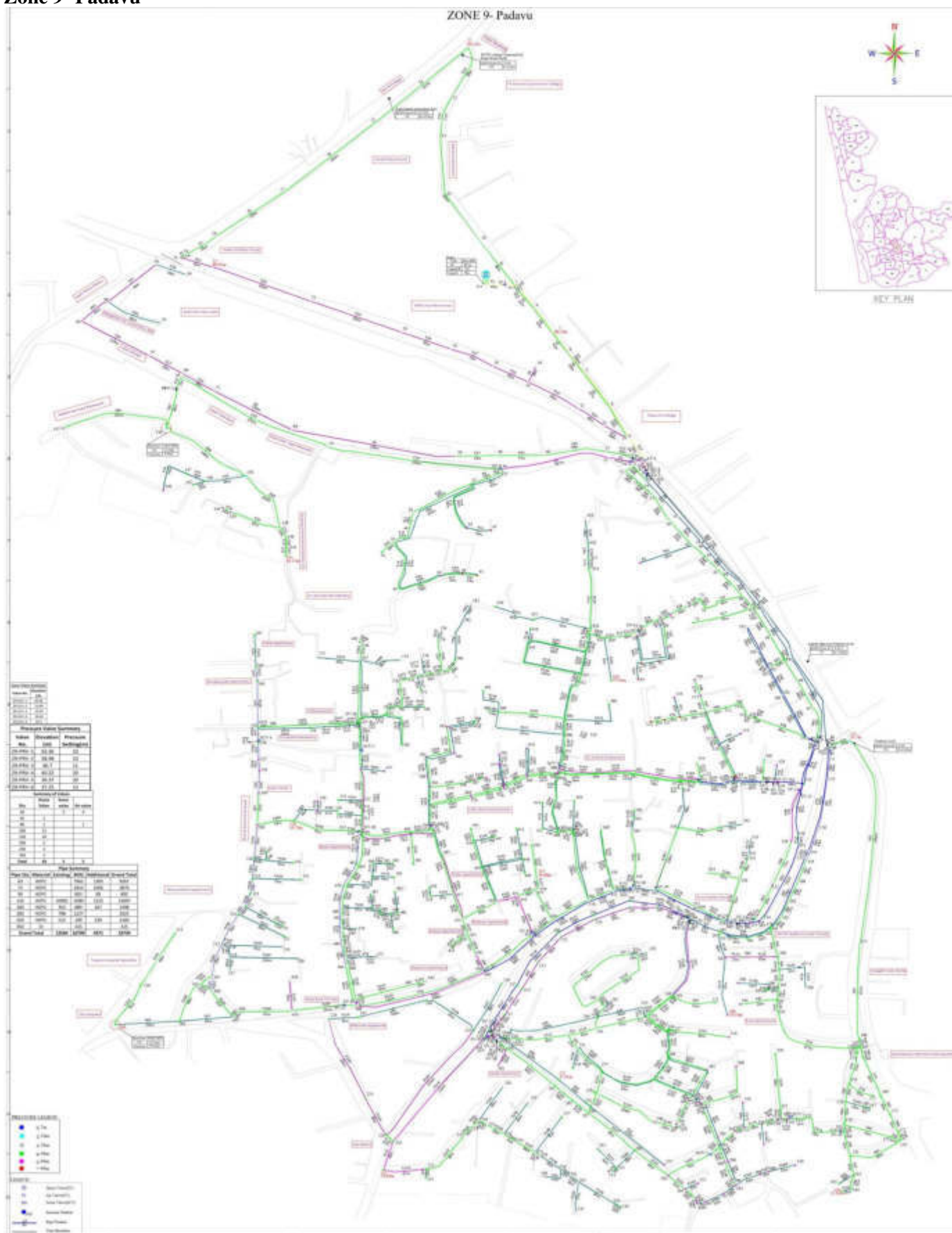




Details of B



Details of C

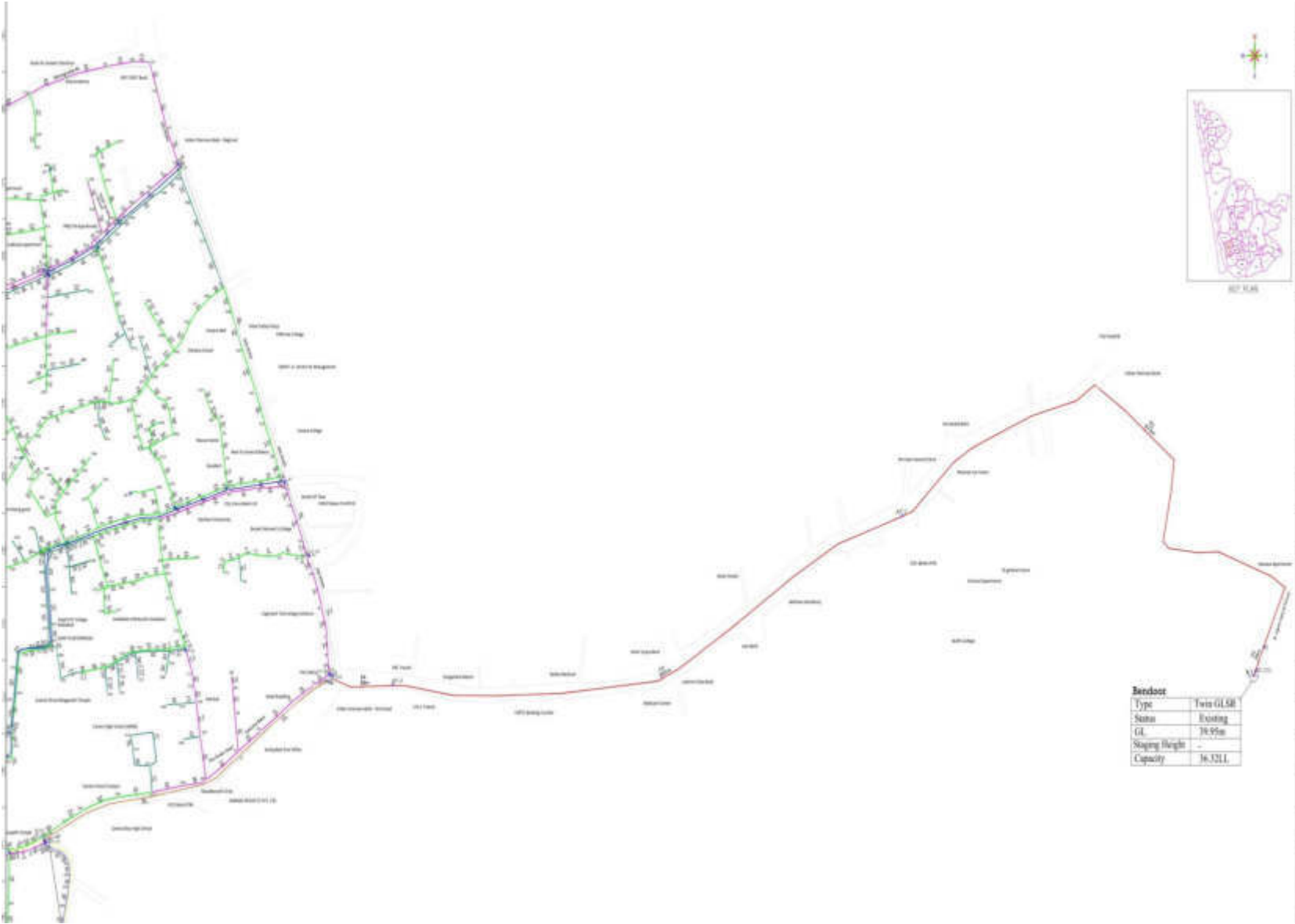


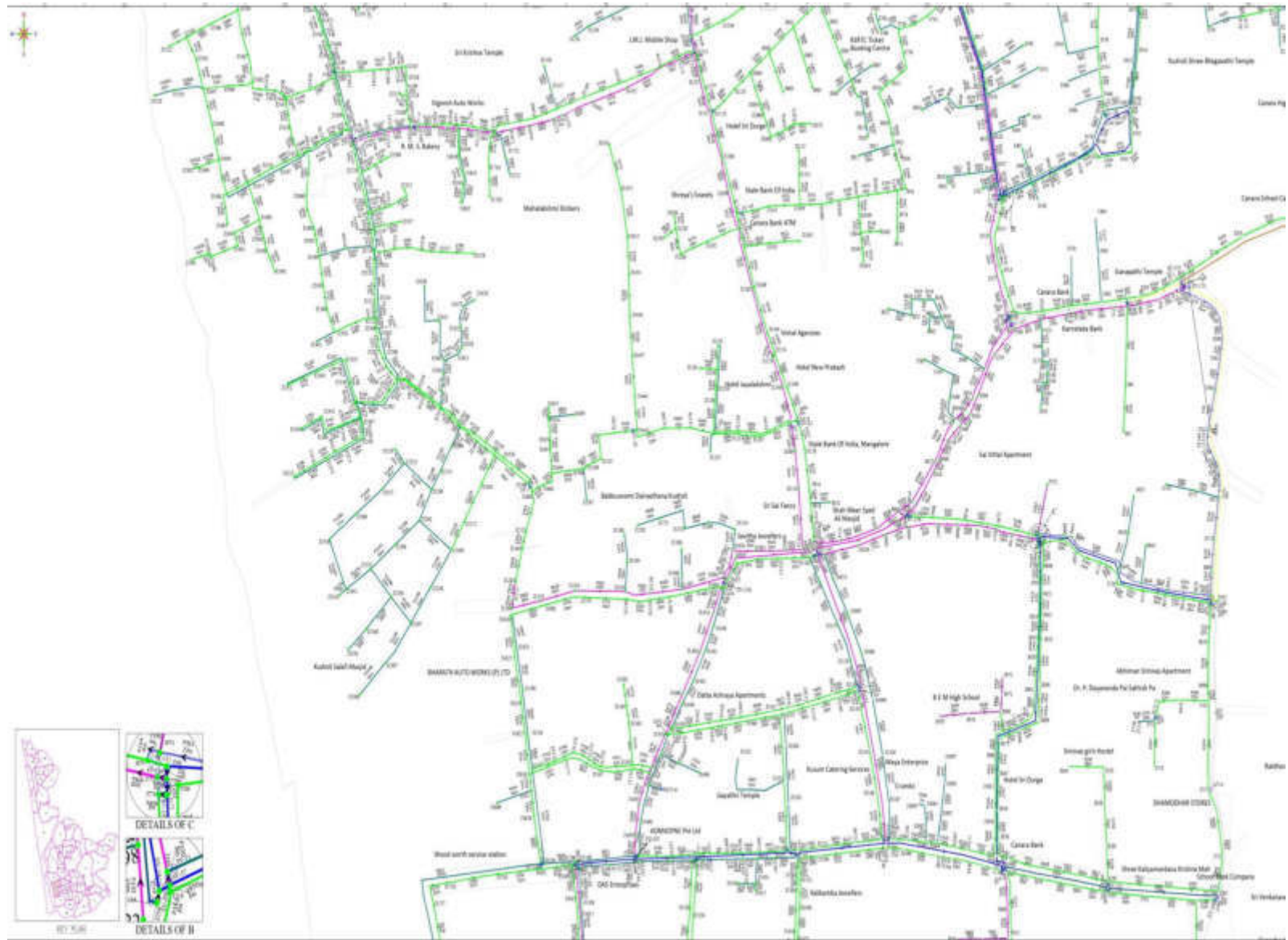
Zone 12- Bendoor

Part A



Part B







ZONE -13 BENDOOR



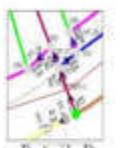
KEY PLAN



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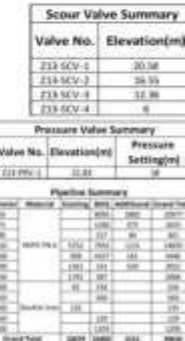
Detail A

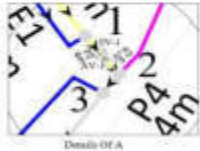
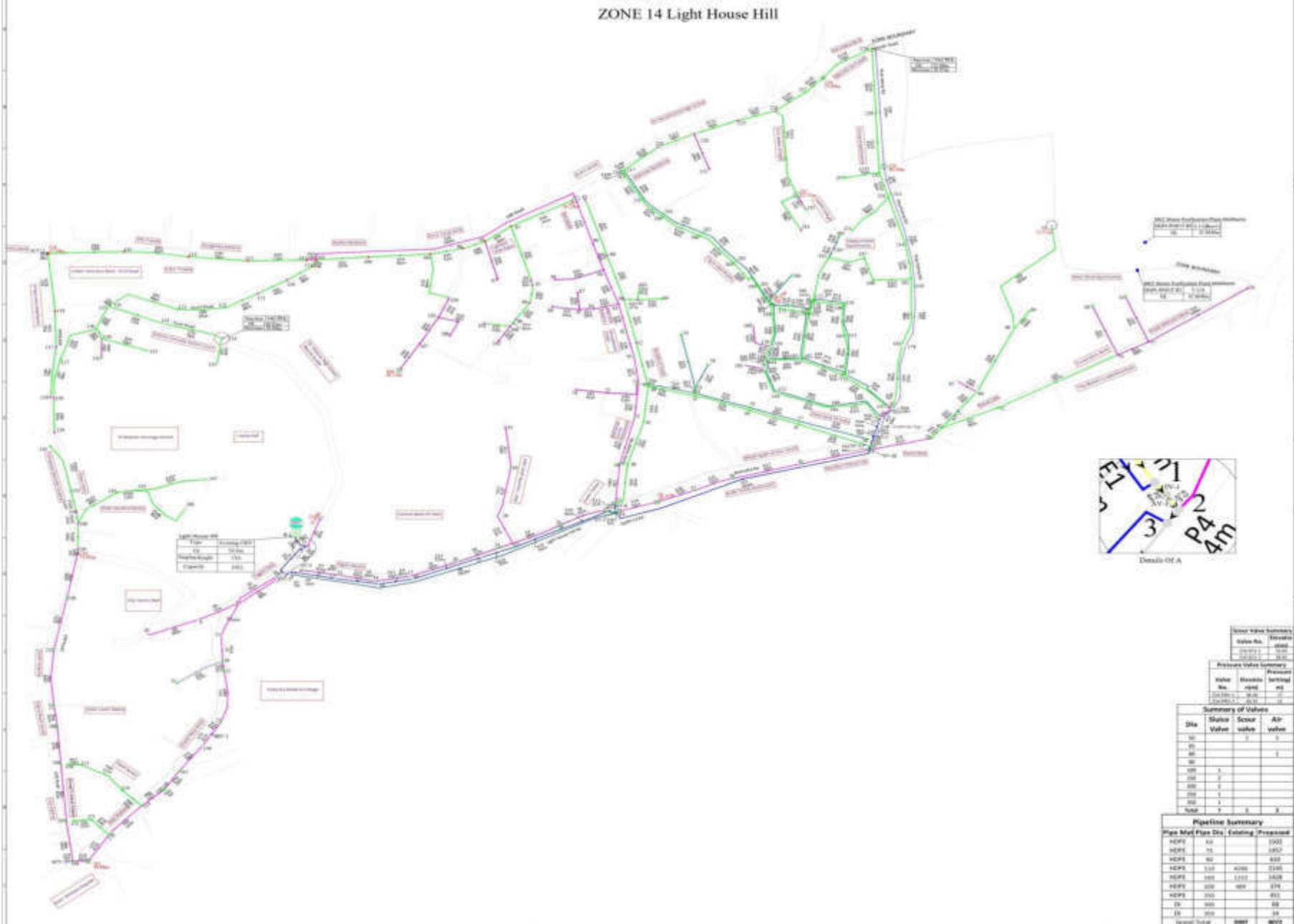


Detail B



Detail C



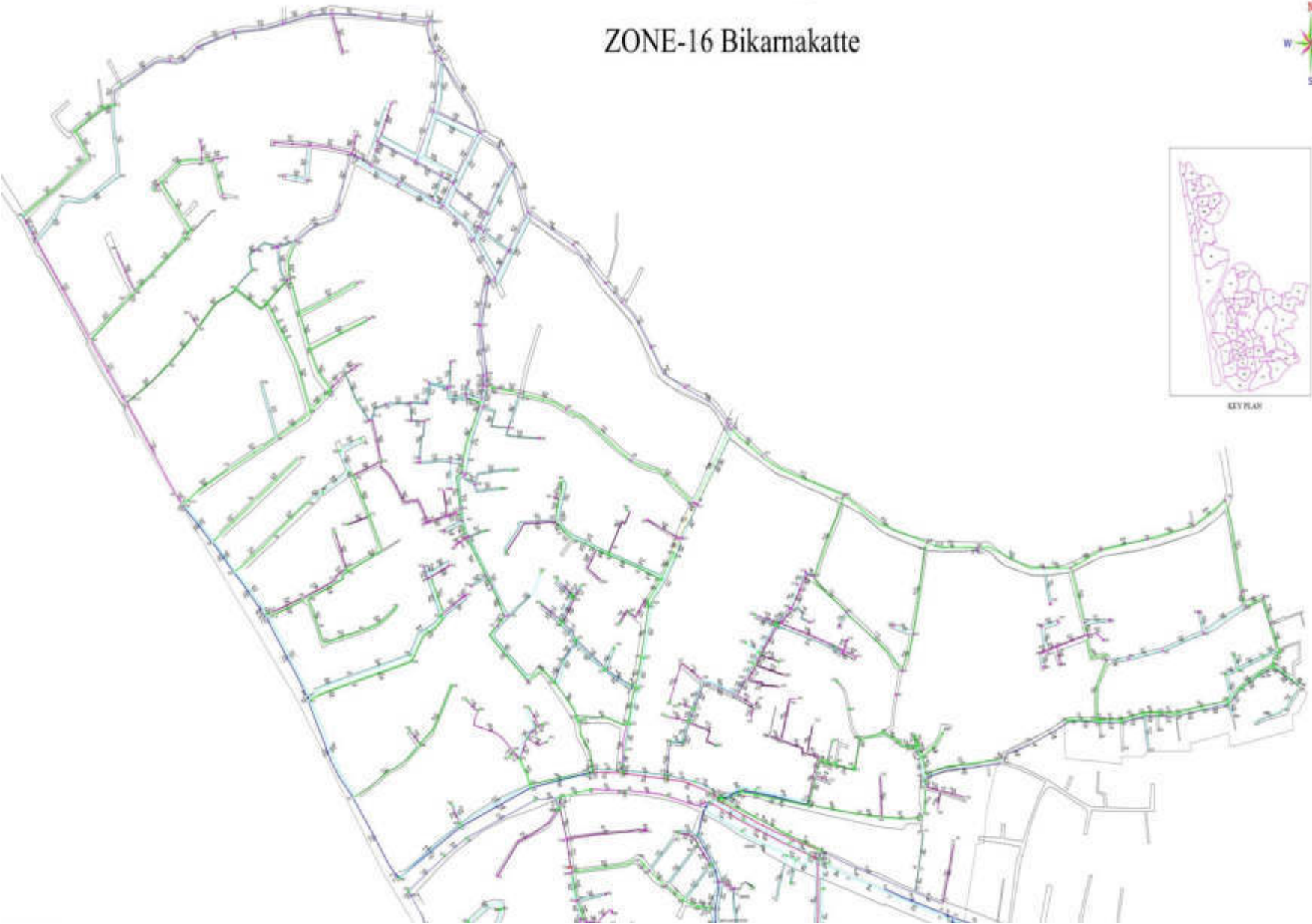


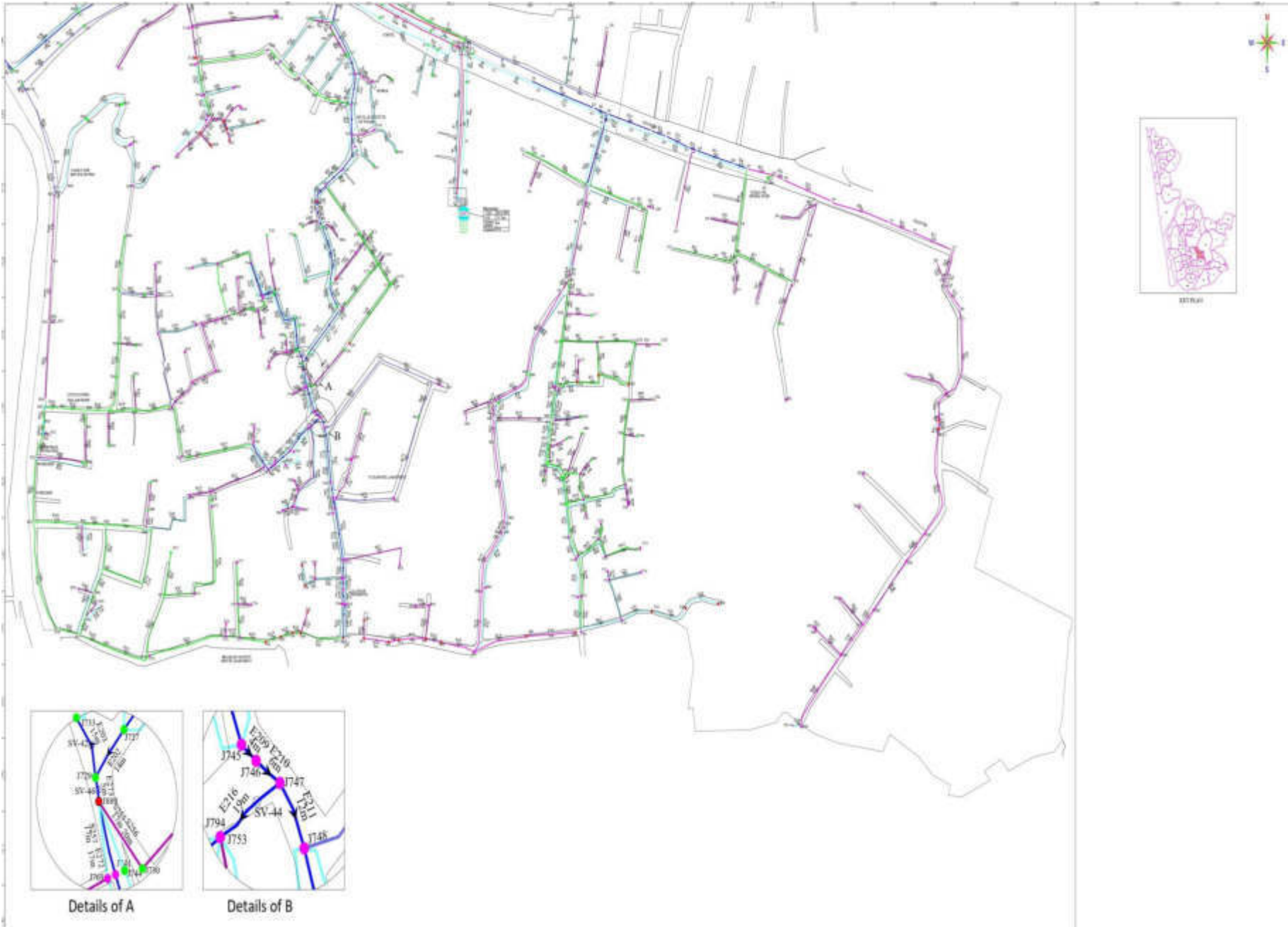
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ZONE 15- BENDOOR

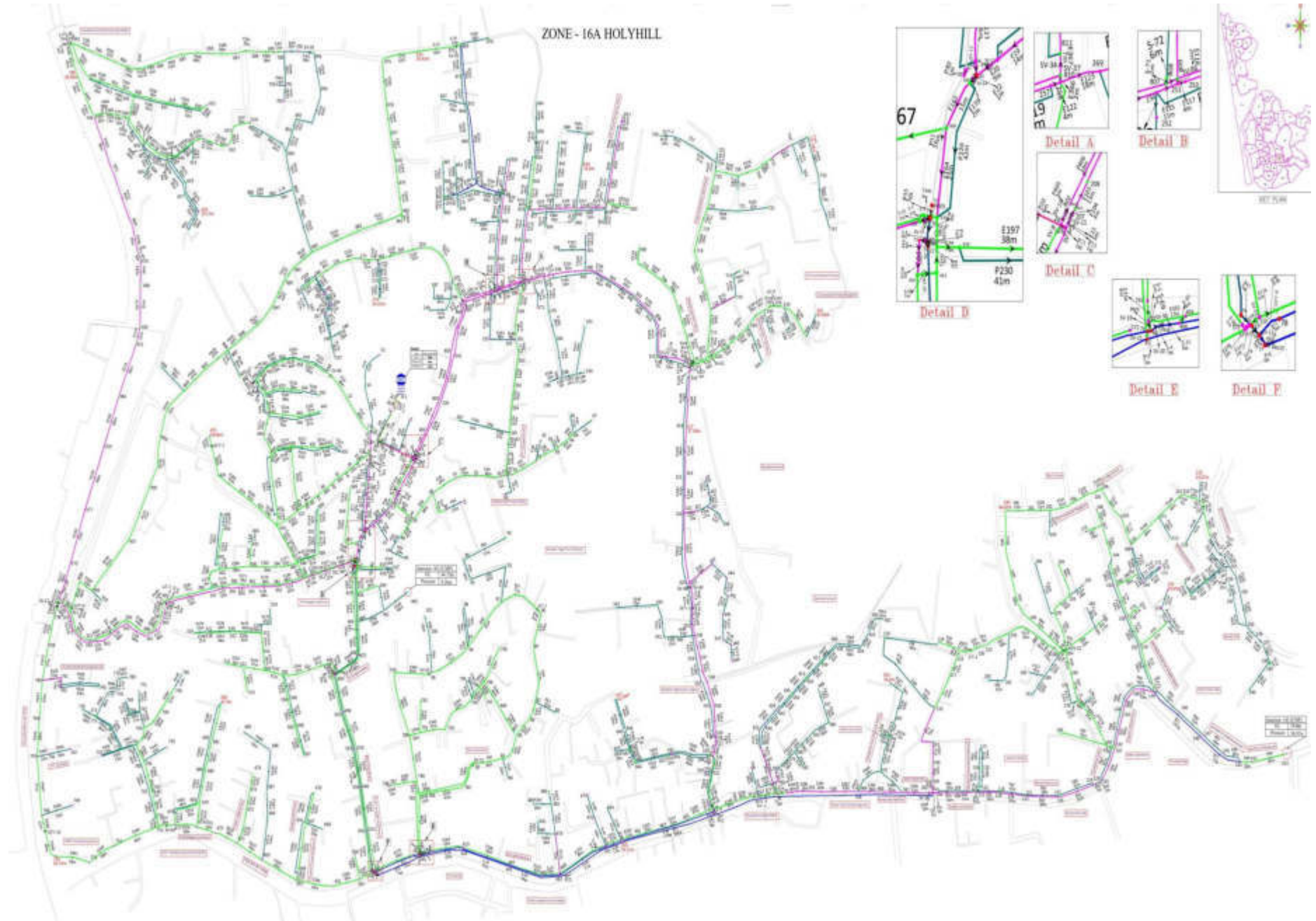




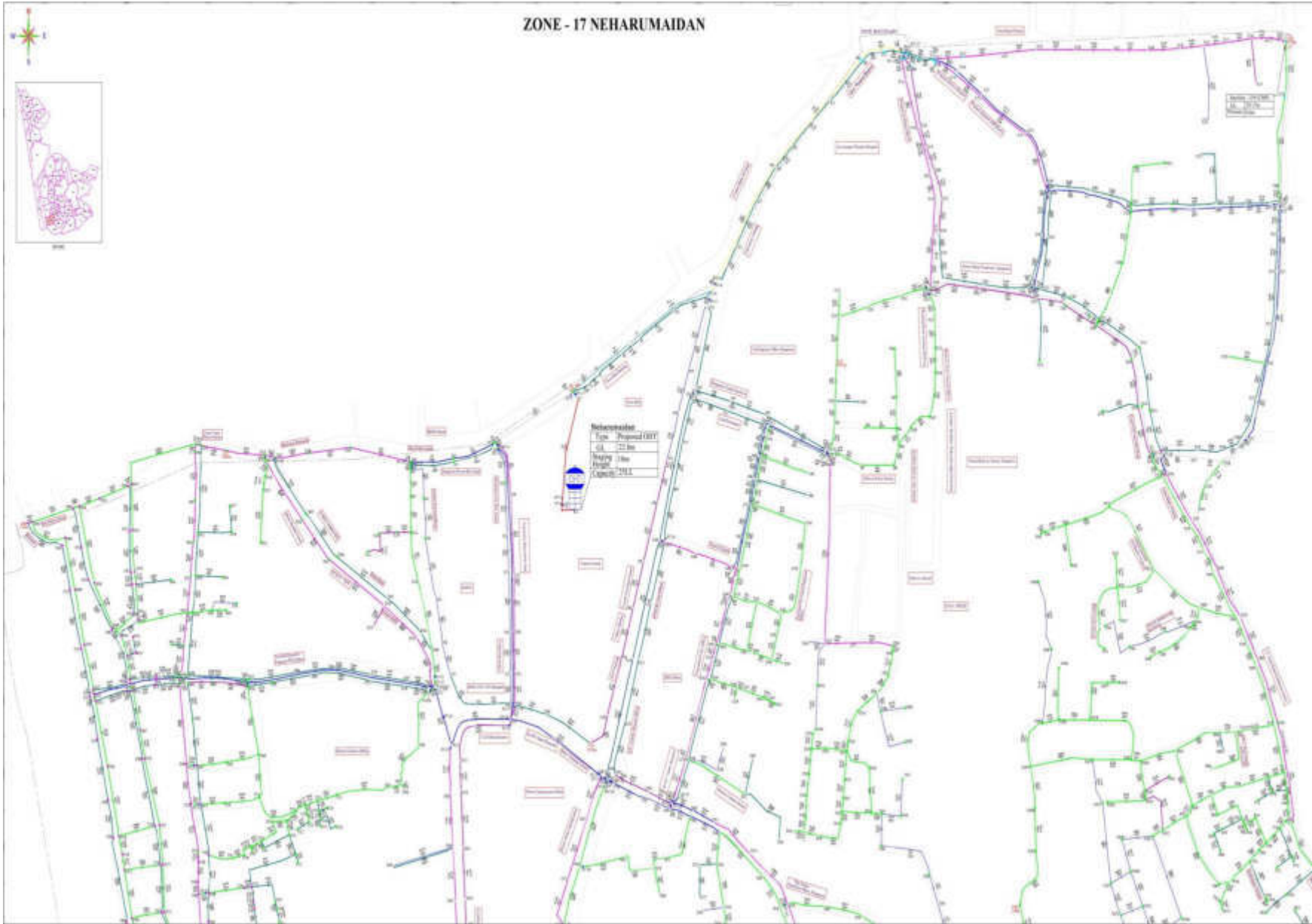




Zone 16A- Holly Hill

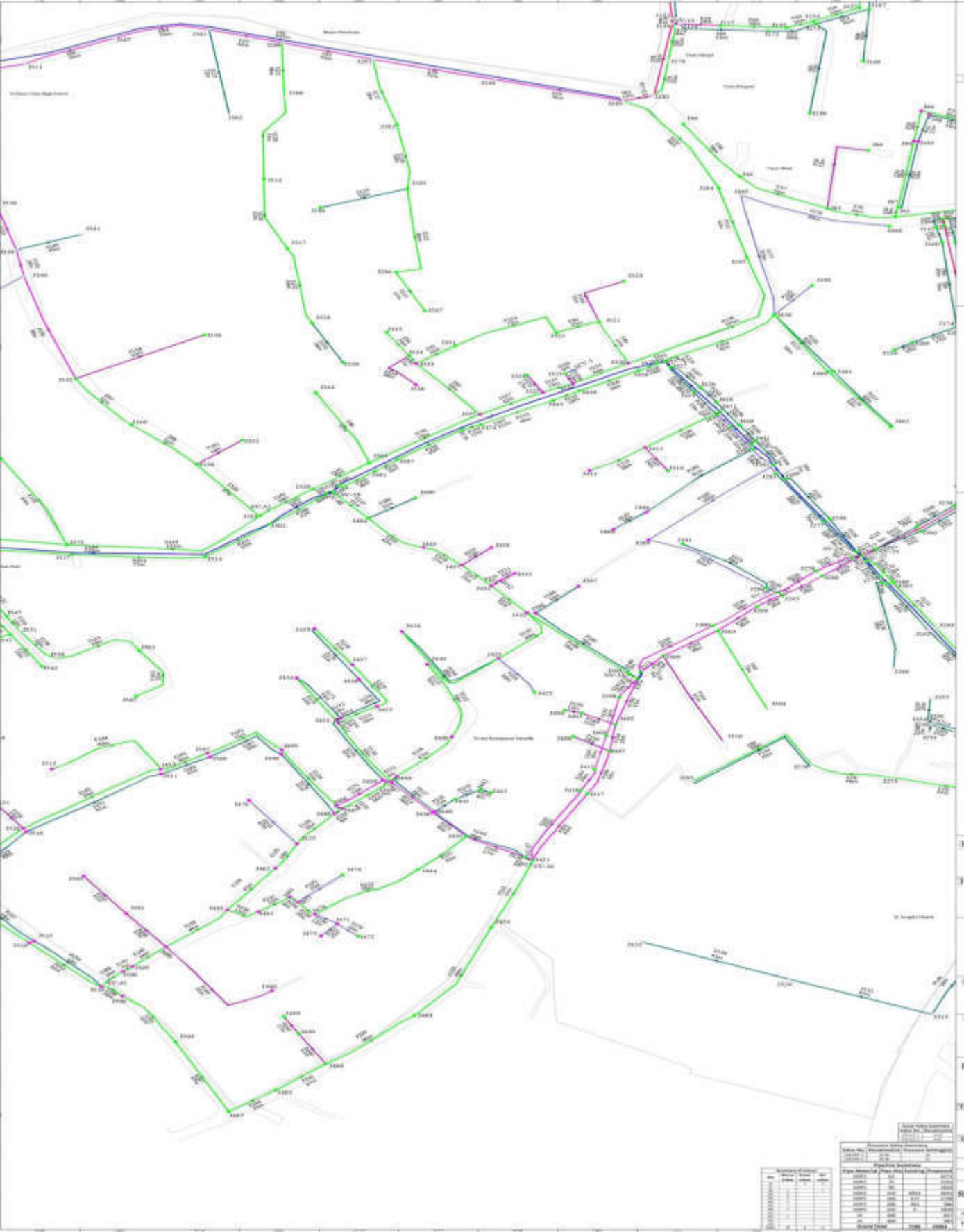


Zone 17 Nehru Maidan



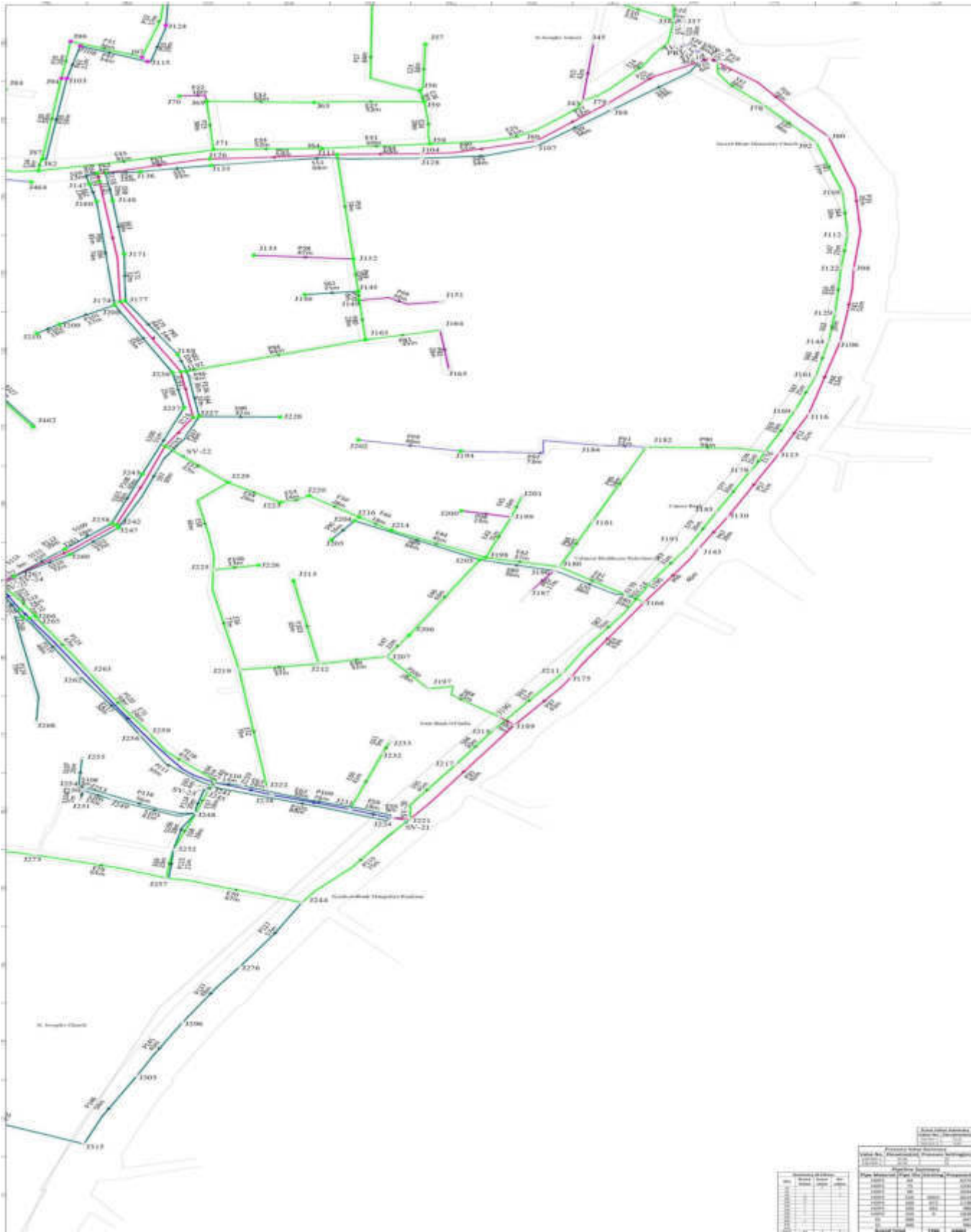






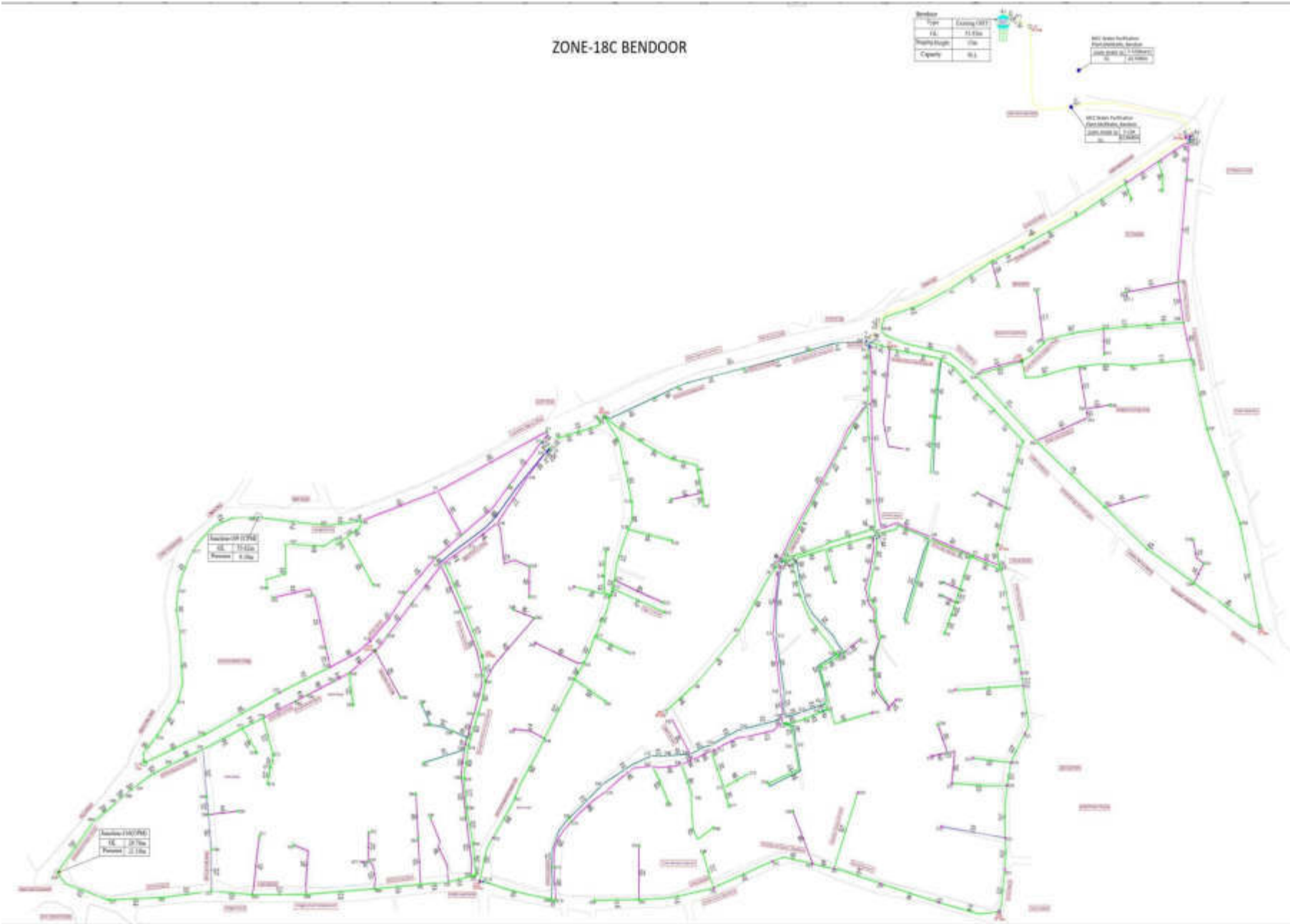


Part D

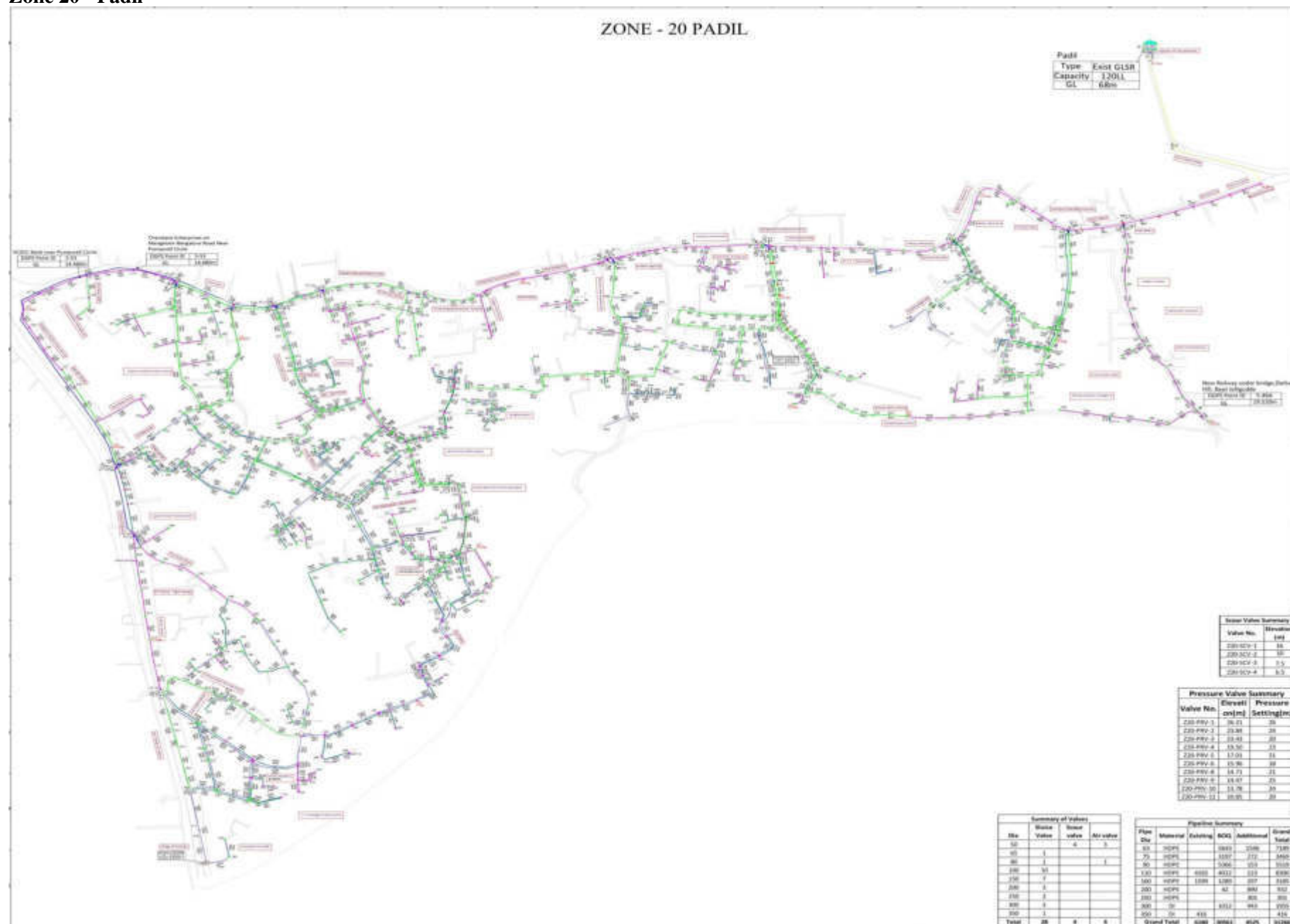




ZONE-18C BENDOOR



[illegible]



312
Zone 20A – Padil
Part A

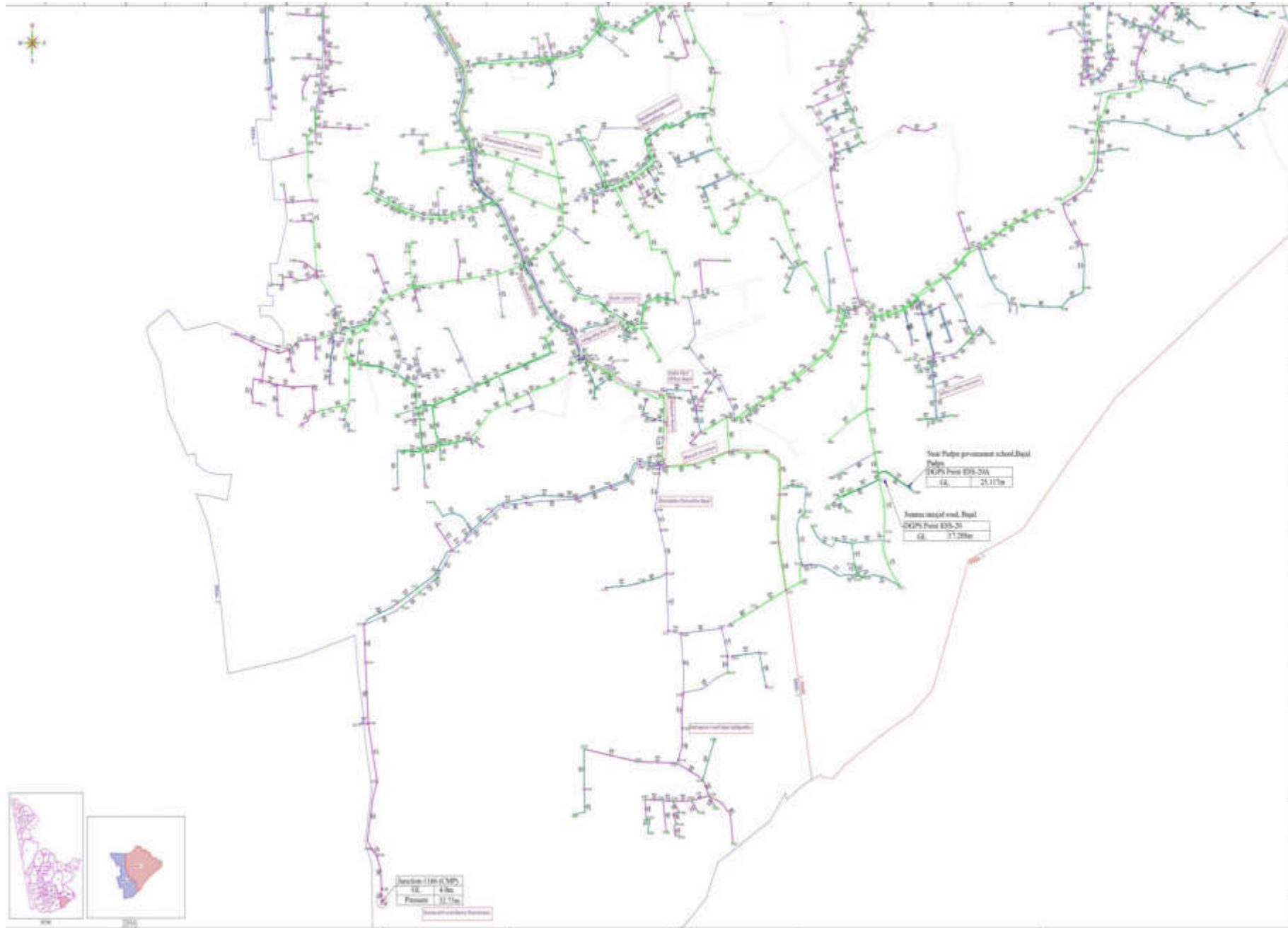


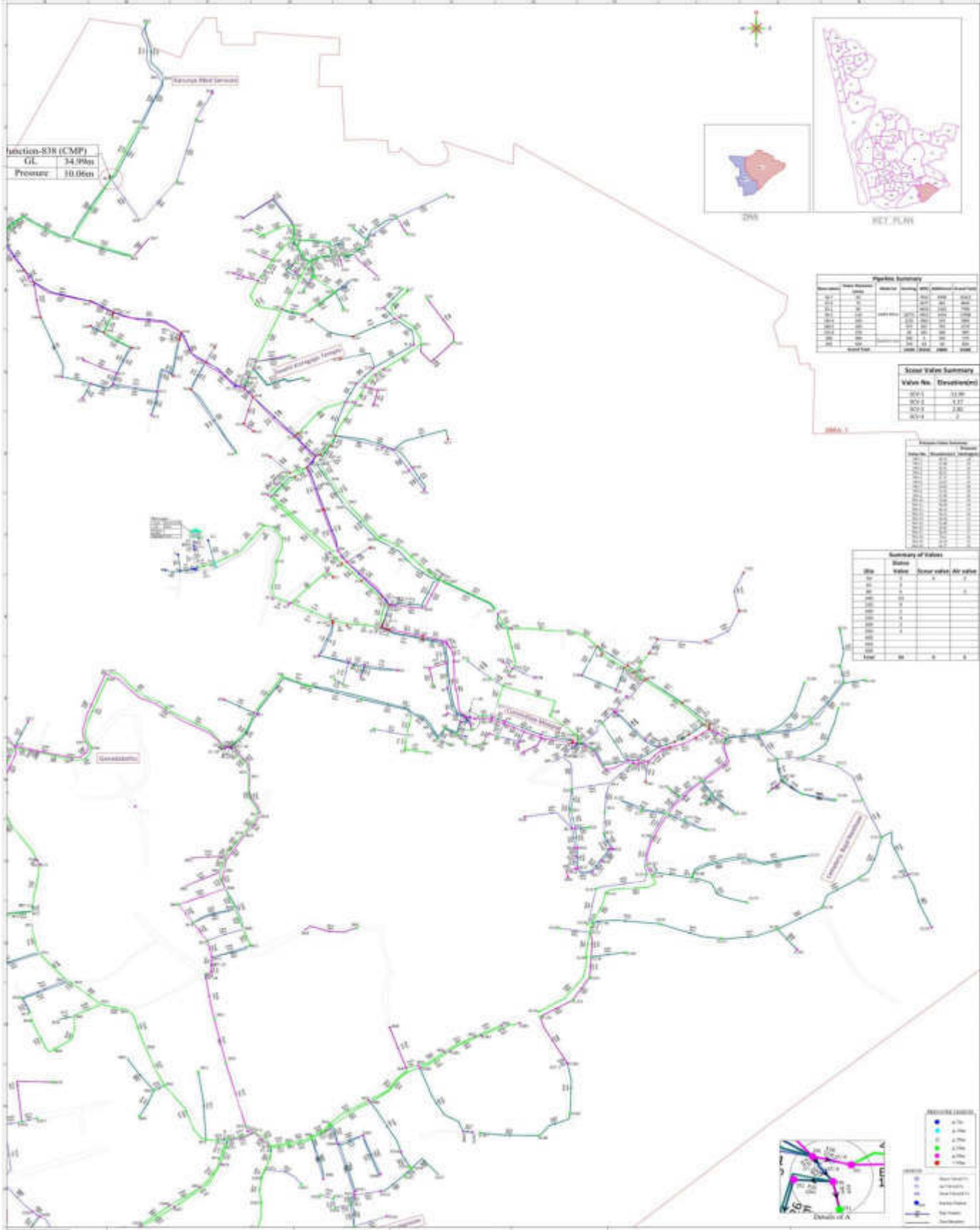




Zone 21 – Ullas Nagar

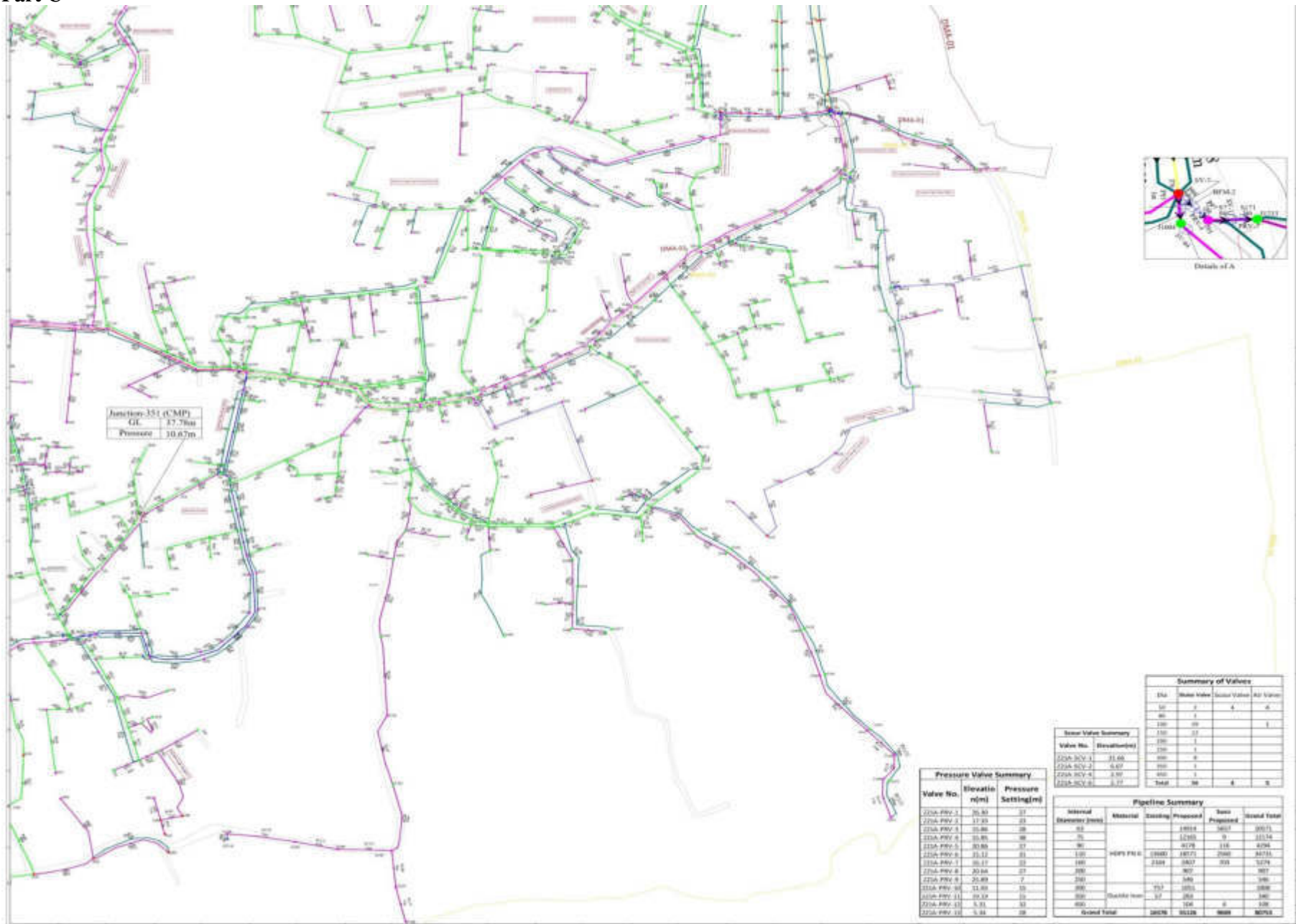














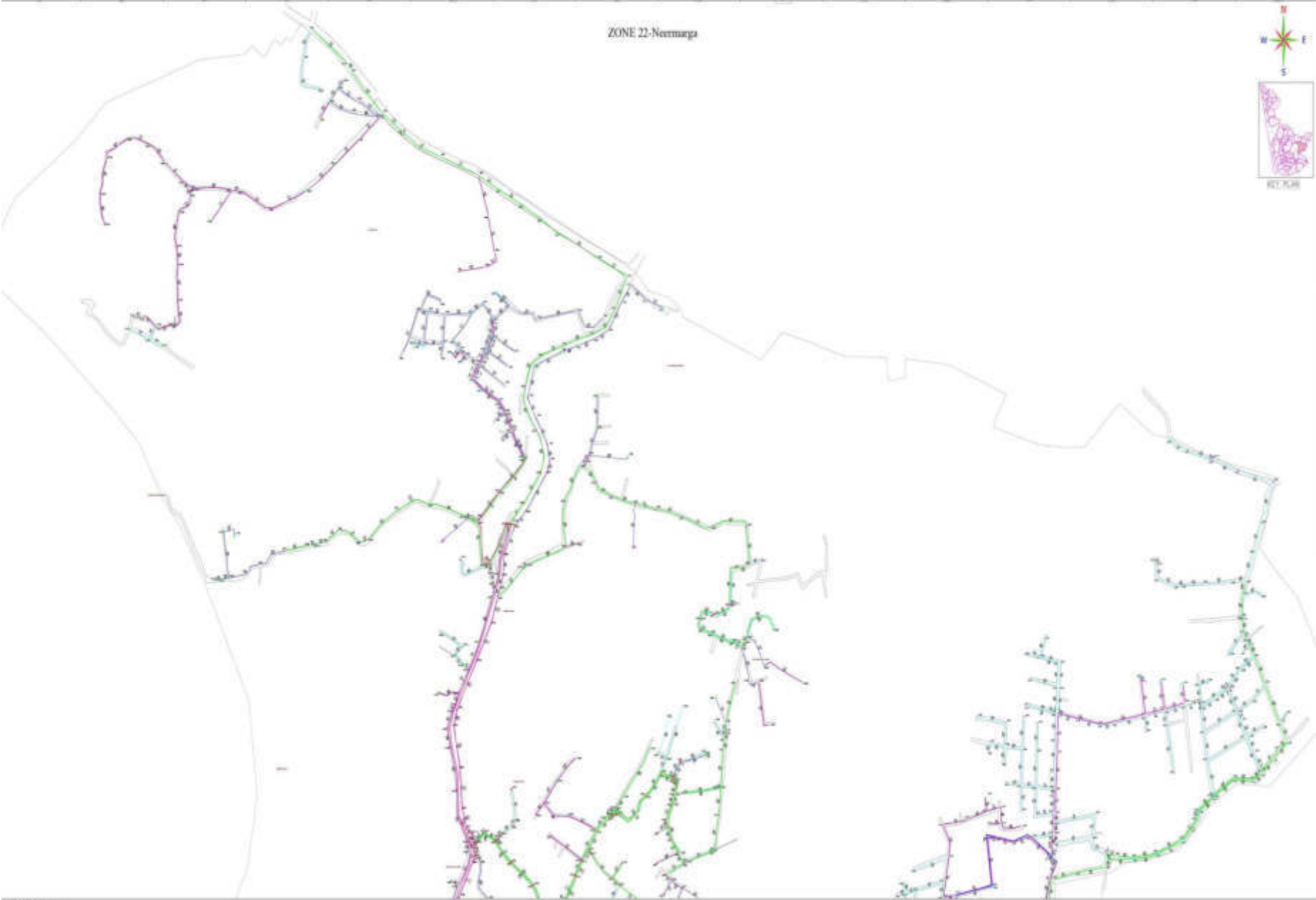
322
Zone 22- Sister's Colony
Part A

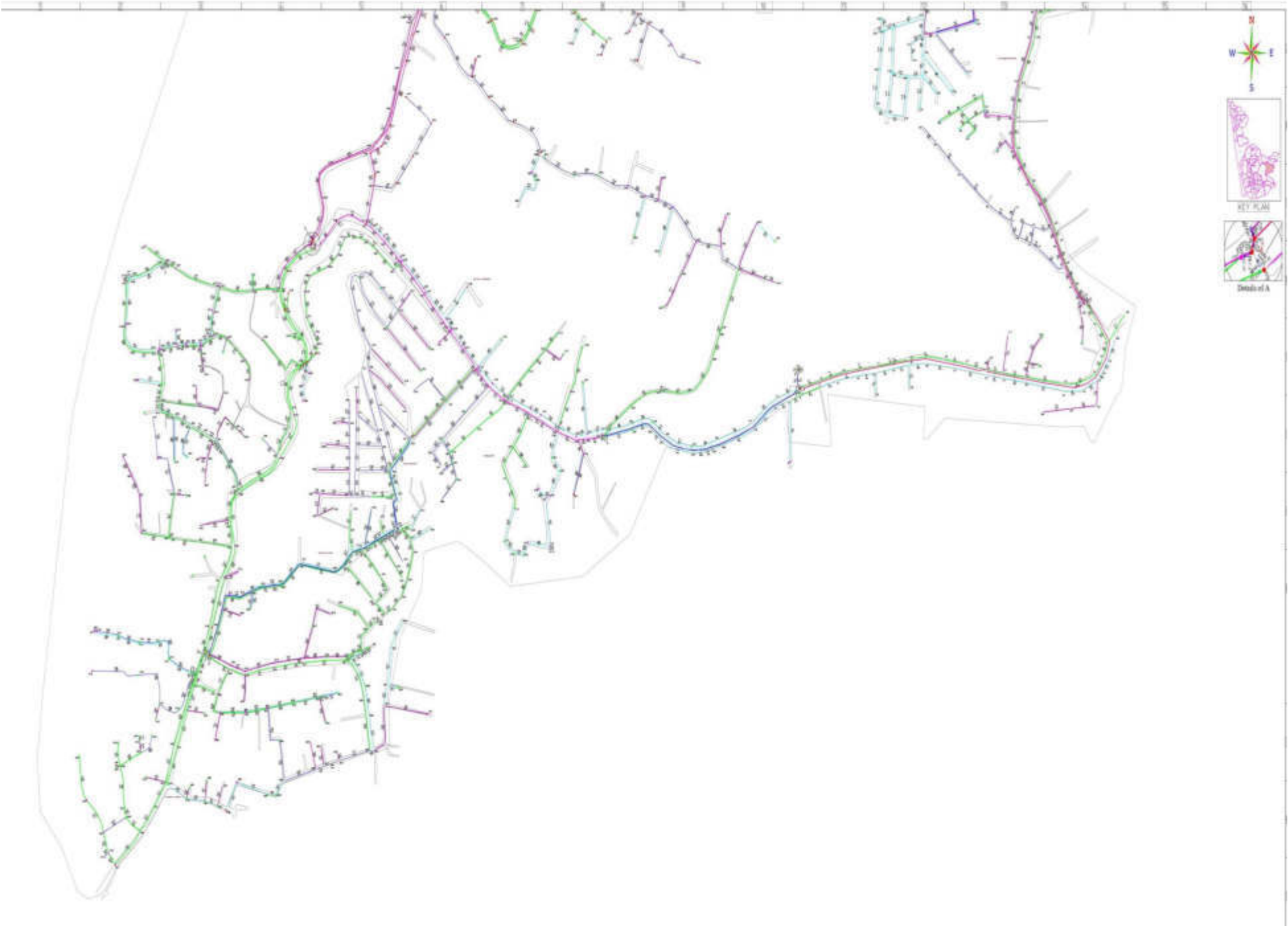


Part B

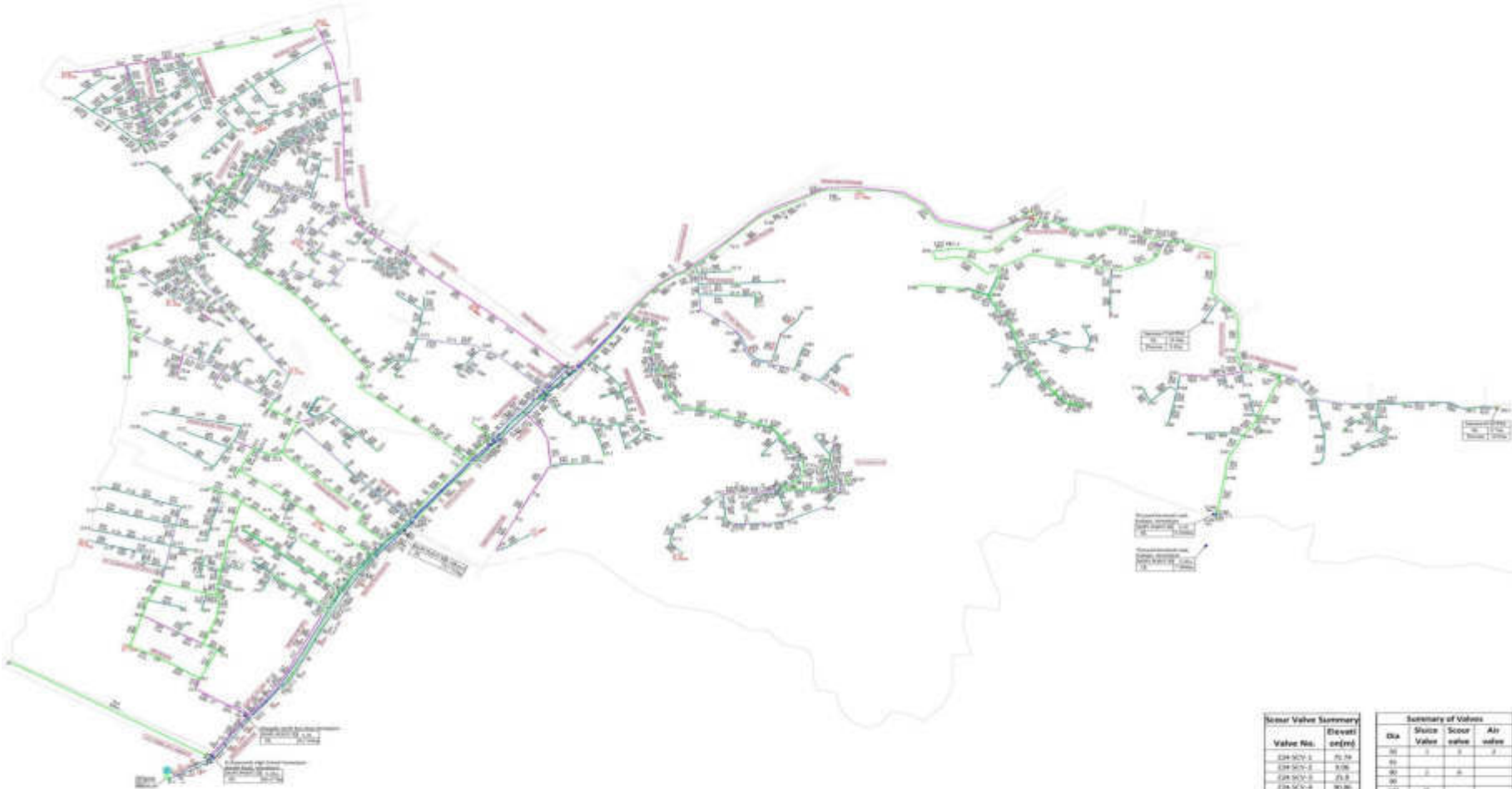


Zone 23- Neermarga





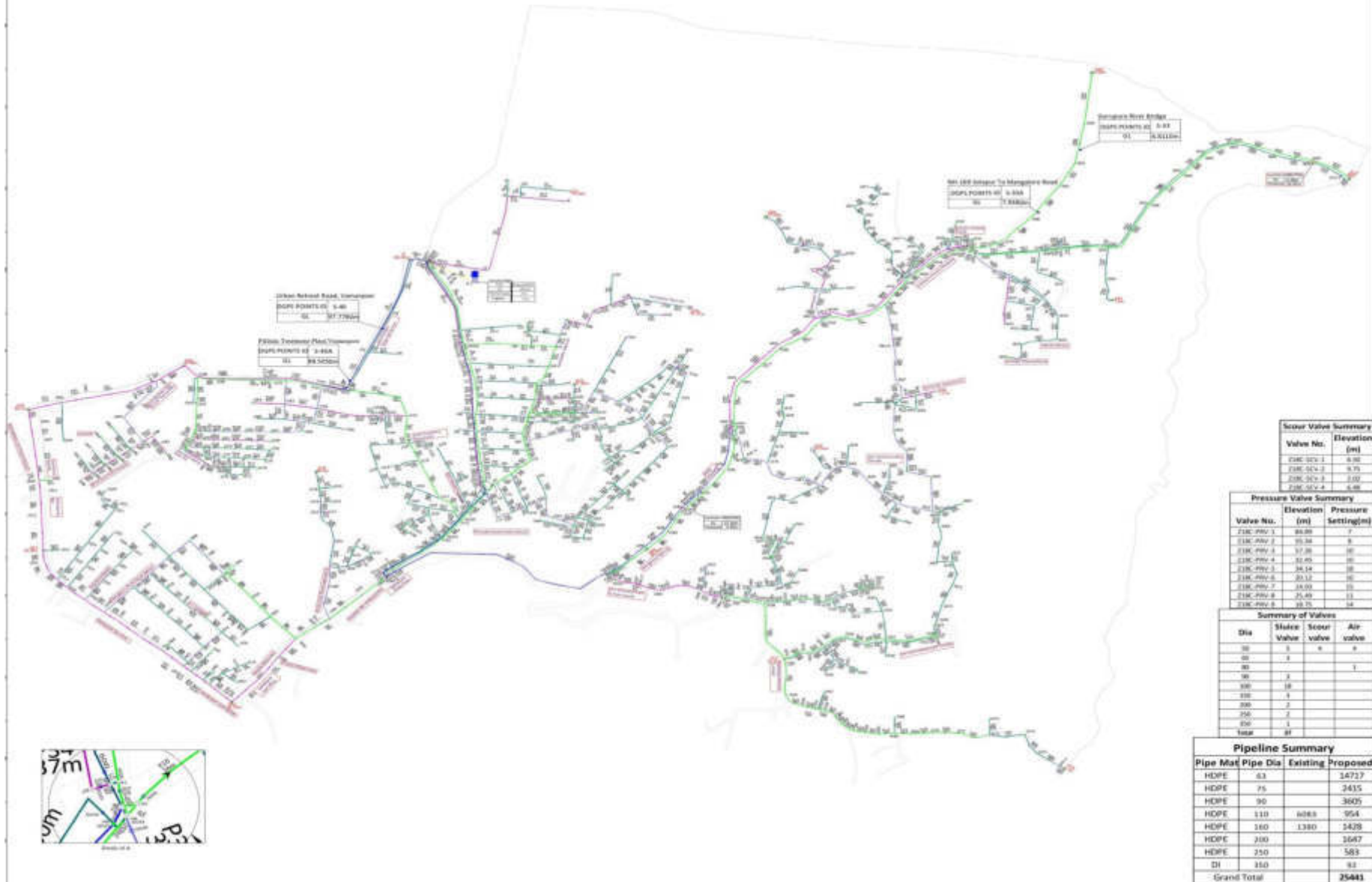
ZONE 24 Thiruvail



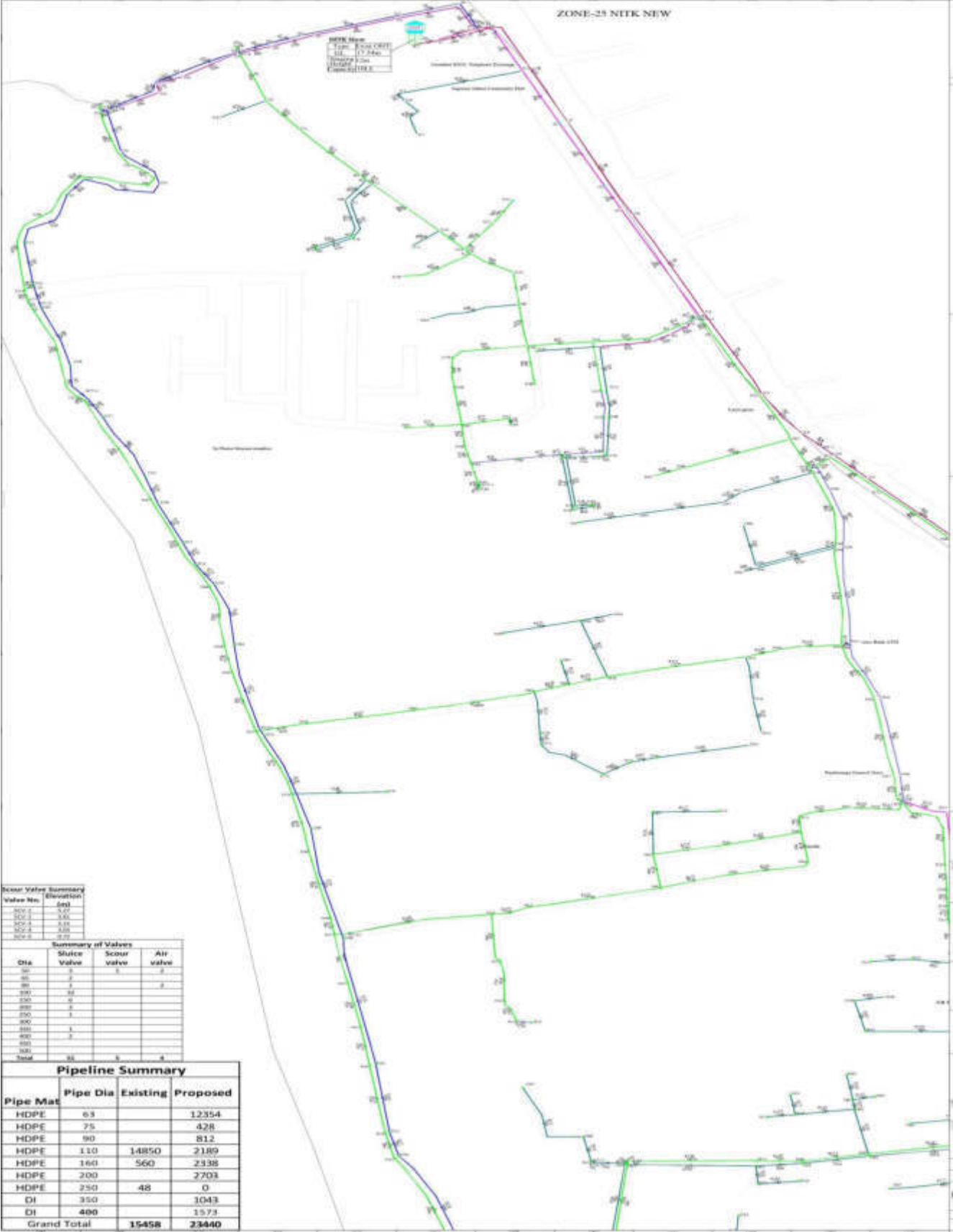
Node Valve Summary		Summary of Valves			
Valve No.	Elevation (m)	Dia	Size	Score	Air
204-502-1	75.78	50	1	0	0
204-502-2	75.06	50	1	0	0
204-502-3	73.9	50	1	0	0
204-502-4	80.80	100	20		
204-502-5	80.74	100	1		
204-502-6	76.1	100	1		
204-502-7	83.76	100	1		
204-502-8	82	100	20	0	0
Total		80	0	0	0

Pressure Valve Summary			Pipeline Summary			
Valve No.	Elevation (m)	Pressure Setting (m)	Pipe Material	Pipe Dia	Pipe Rating	Program
PV0-1	85.36	52.00	HDPE	60	PN 6	50480
PV0-2	88.40	52.00	HDPE	75	PN 6	1309
PV0-3	80.28	50.00	HDPE	90	PN 6	2289
PV0-4	84.40	50.00	HDPE	110	PN 6	3827
PV0-5	82.53	50.00	HDPE	160	PN 6	1001
PV0-6	84.80	52.00	HDPE	200	PN 6	532
PV0-7	79.44	50.00	HDPE	250	PN 6	134
Grand Total						22120

ZONE 24A Amruth Nagar



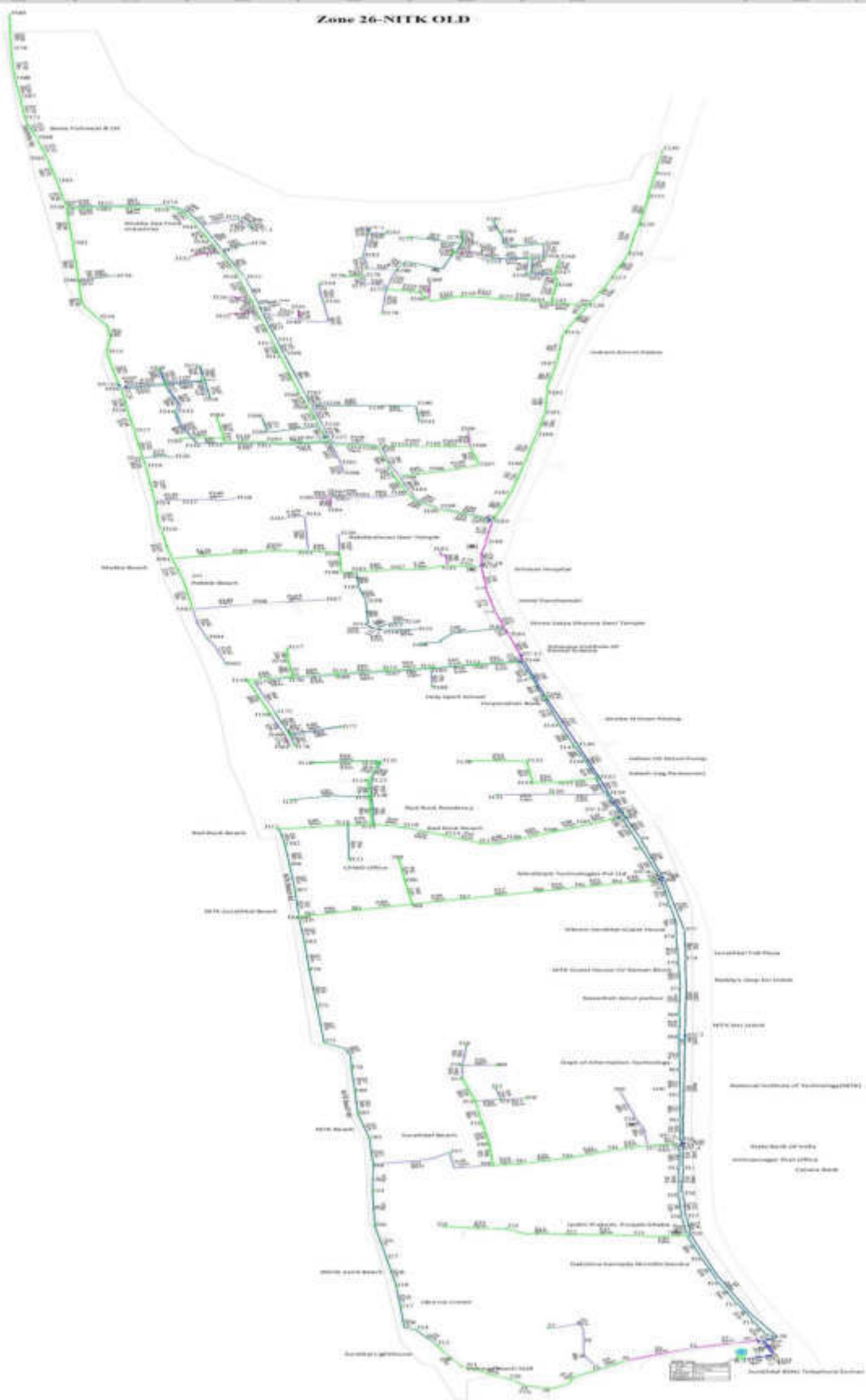
328
Zone 25- NITK New
Part A



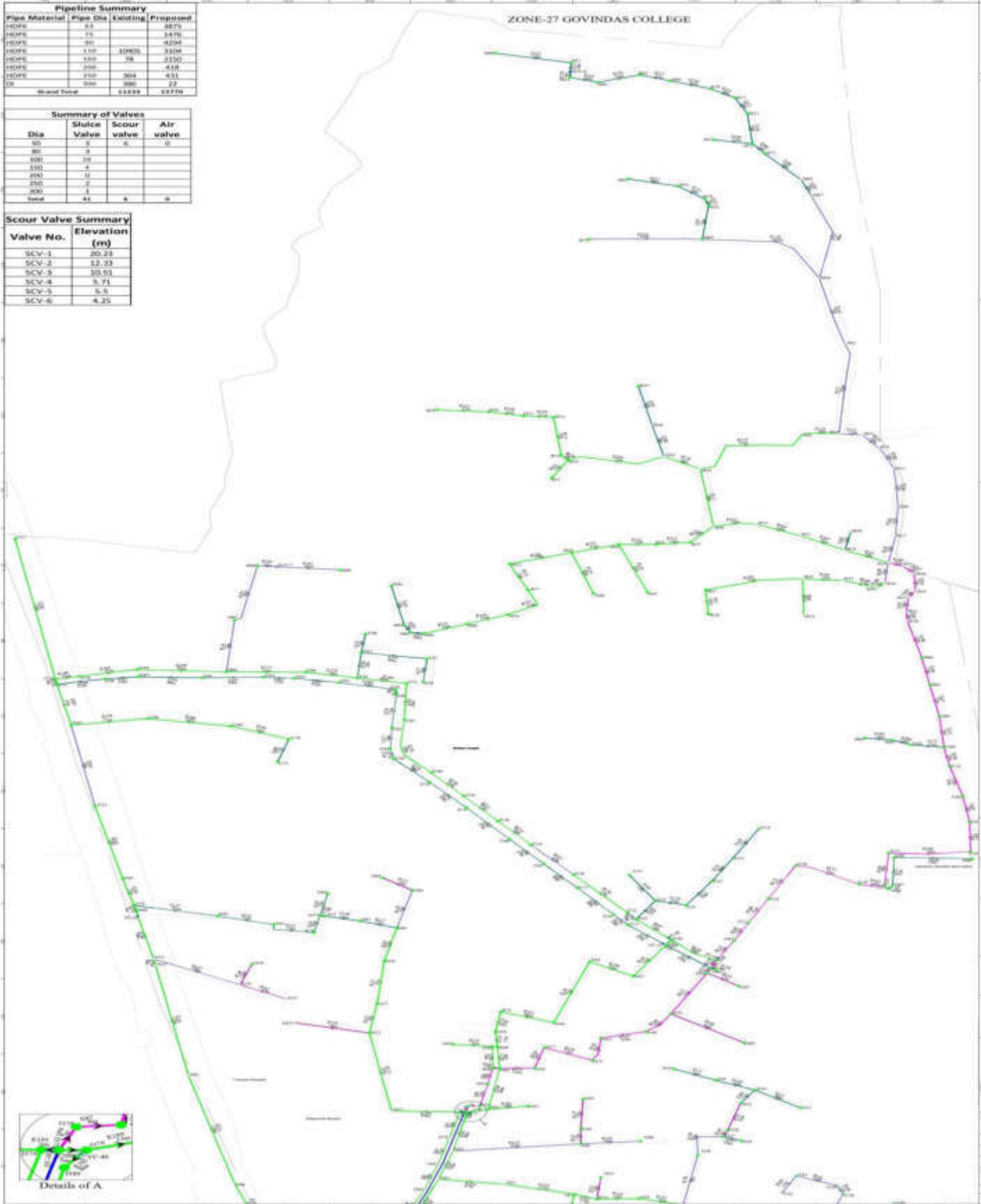


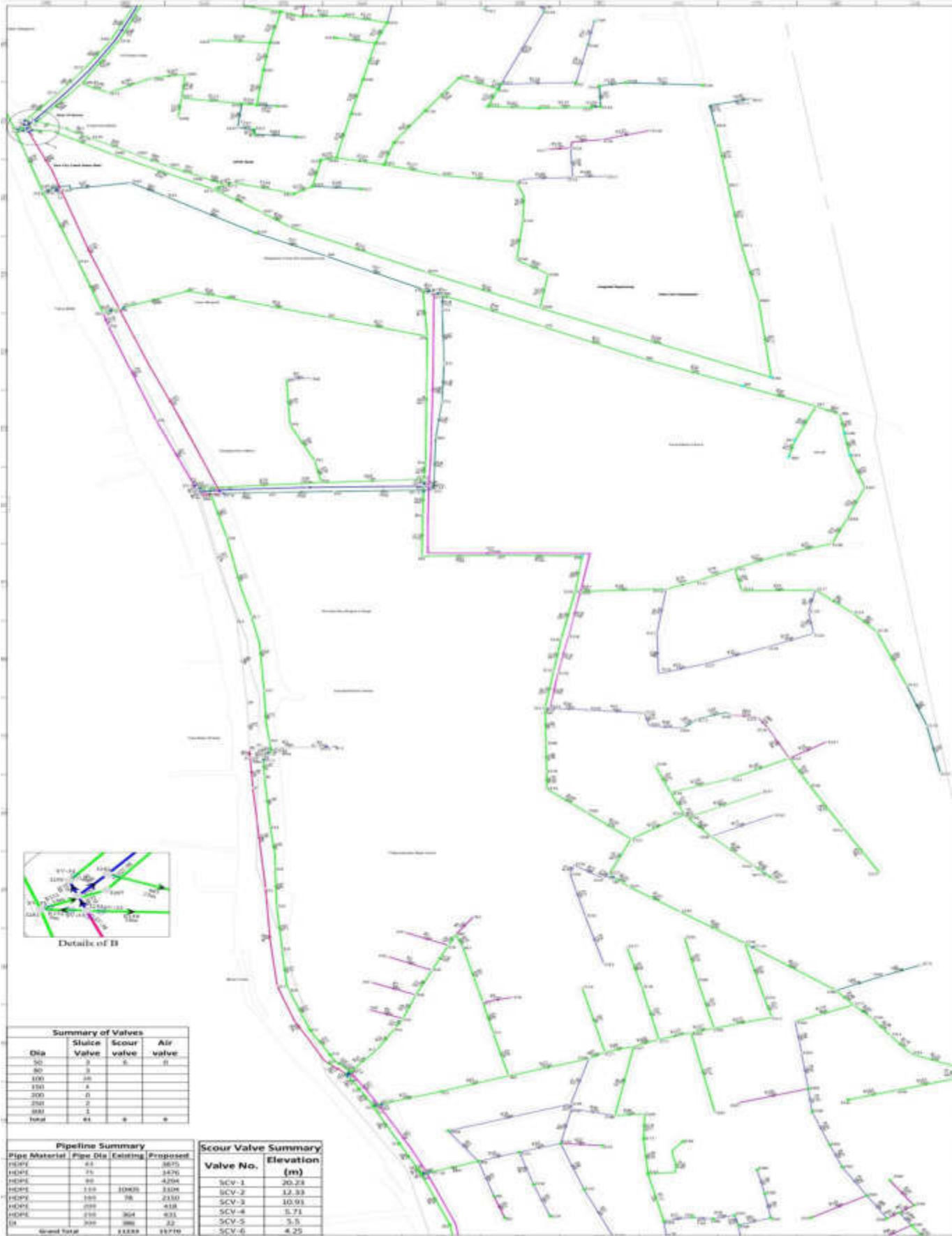


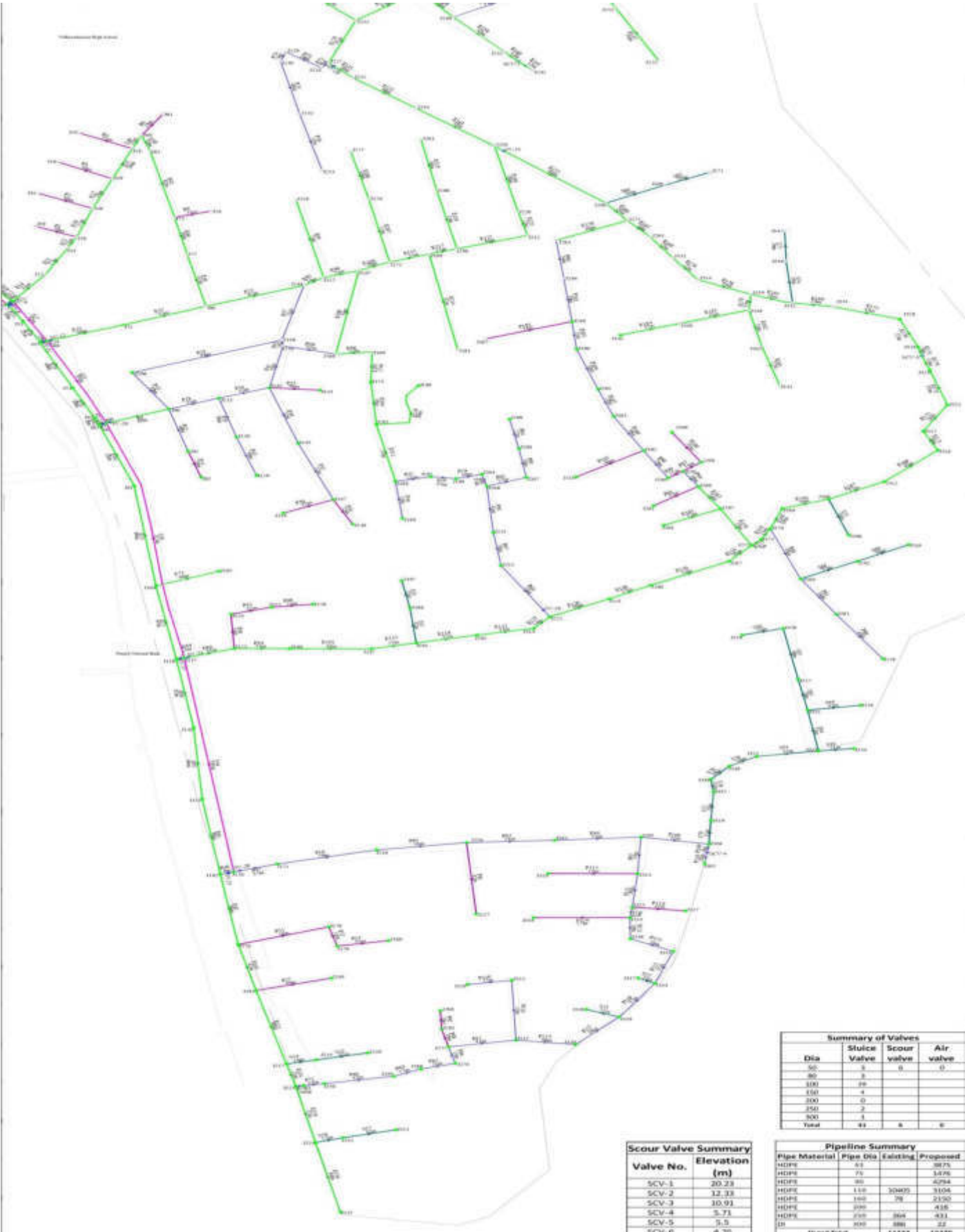




333
Zone 27- Govindadas College
Part A













Zone 28- Padupadavu

ZONE 28-Padupadavu



Zone 28A Kodipady



Zone 29A- Krishnapura

ZONE - 29 KRISHNAPURA



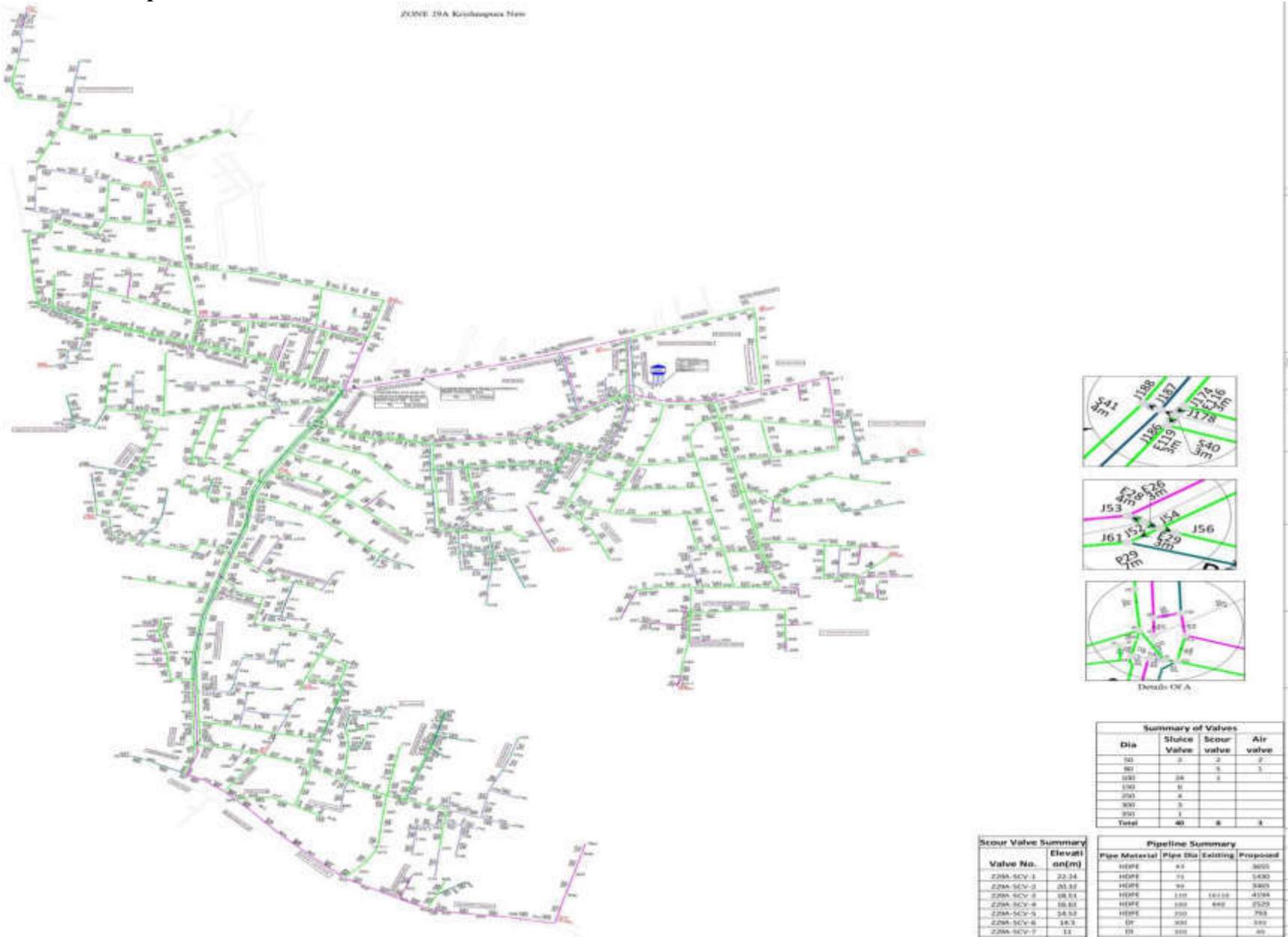
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125 SV. 2	15.36
125 SV. 3	15.36
125 SV. 4	15.36
125 SV. 5	15.36
125 SV. 6	15.36
125 SV. 7	15.36

Summary of Values	Value
125 SV. 1	15.36
125 SV. 2	15.36
125 SV. 3	15.36
125 SV. 4	15.36
125 SV. 5	15.36
125 SV. 6	15.36
125 SV. 7	15.36
Total	107.04

Summary of Values	Value
125 SV. 1	15.36
125 SV. 2	15.36
125 SV. 3	15.36
125 SV. 4	15.36
125 SV. 5	15.36
125 SV. 6	15.36
125 SV. 7	15.36
Total	107.04

Summary of Values	Value
125 SV. 1	15.36
125 SV. 2	15.36
125 SV. 3	15.36
125 SV. 4	15.36
125 SV. 5	15.36
125 SV. 6	15.36
125 SV. 7	15.36
Total	107.04

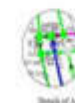
Zone 29A- Krishnapura New



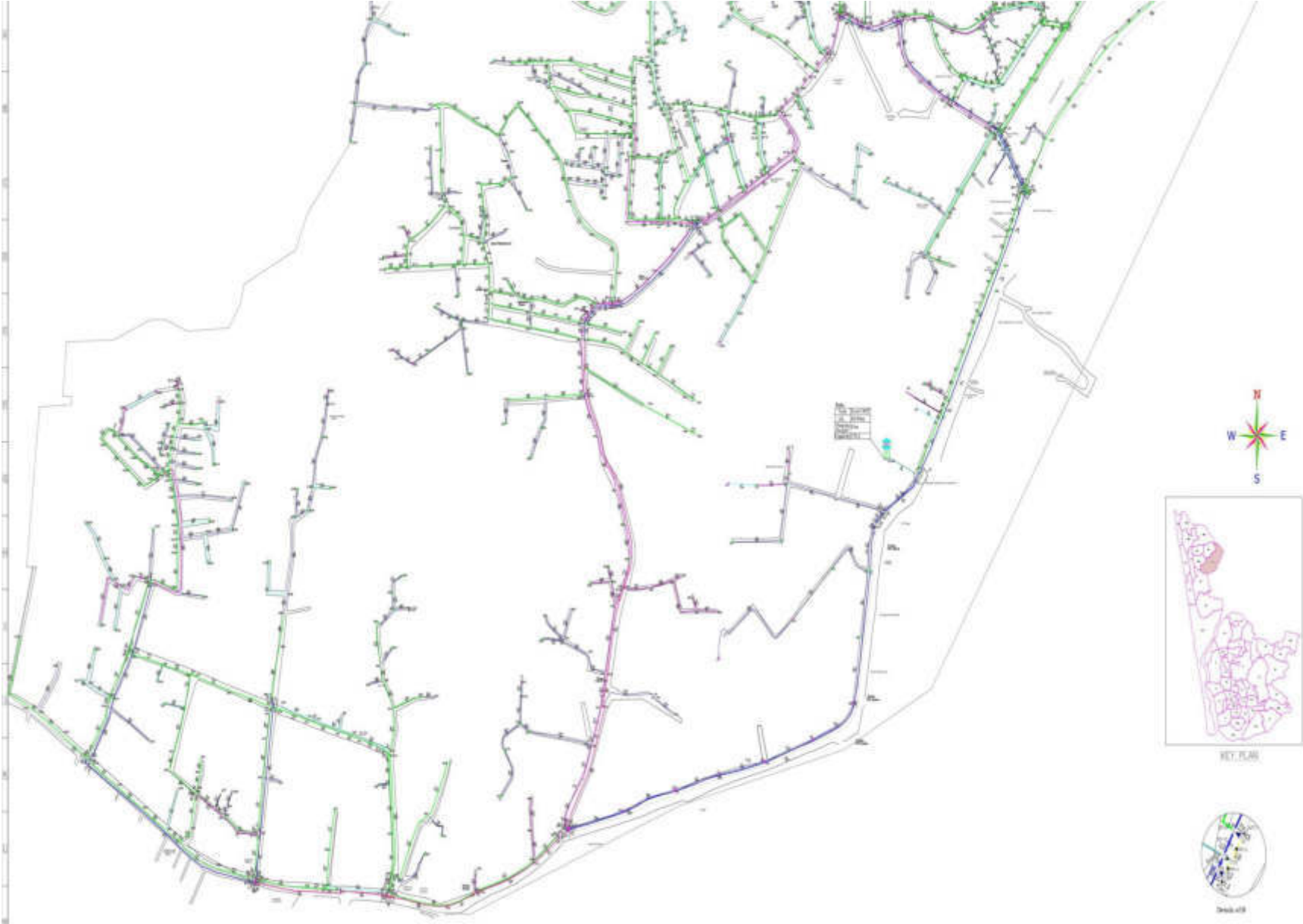
Zone 31- Bala

Part A

ZONE-31 BALA



Part B



Appendix 19 Approved OHT layouts

SAUW IEE Review - Information Log

Instructions: Provide information based on IEE submitted by Project Management Unit (PMU). This IEE log sheet will serve as record of the review findings, comments, and/or further actions required during implementation. A copy of the IEE log sheet should be (i) provided to PMU for their record and guidance on actions during implementation; (ii) attached in the cleared IEE to be disclosed; (iii) used as reference for review of updated/final IEE and (iv) inputted in the SARD Safeguards Compliance Tracking System.

Project:	IND: Karnataka Integrated Urban Water Management Investment Program (Tranche 2) – Improvements for 24 x 7 Water Supply System for City Corporation, Mangalore.		
Loan No.:	43253-027	Package No.:	02MNG01
Components:	(i) Laying of new clear water feeder mains of DI/MS 46.94 Kms. of diameter 200mm to 660mm to overhead tanks and Ground Level Storage Reservoirs. (ii) Construction of 14 OHTs (Over Head Tanks) and 2 GLSRs (Ground Level Storage Reservoirs) (iii) Laying of 982.80 kms of distribution network in uncovered areas and 405.93 kms of rider and parallel lines (diameter 63 mm to 500 mm); HDPE and DI. (iv) Construction of 7 Nos Intermittent Pumping Stations. (v) Replacement of 78,969 existing house service connections along with meters and providing 11,031 new metered HSCs to uncovered HHs. (vi) Providing 4,500 commercial and 1,800 industrial connections. (vii) Providing 181 No Bulk flow meters from Jack well to OHTs.		
Contract Type:	Design validation, item rate contract.		
Date of IEE:	March 2021		
Draft IEE?	Updated/Revised IEE?		Others
	X		Updated IEE submitted for disclosure at PMU and ADB websites after revision in original scope of work based on ongoing design validation Survey.

	Activity	Status		Detailed Comments and Further Actions Required
		Yes	No	
1.	Environmental assessment has been satisfactorily conducted based on ADB REA Checklist and scoping checklist. ¹⁹	x		The updation in Environmental Assessment has been conducted for the proposed Water Supply distribution system improvement using the design validation surveys and secondary environmental baseline information for Improvements for 24 x 7 Water Supply System for

¹⁹ ADB Rapid Environmental Assessment Checklist for screening and categorization. Scoping Checklist ("No Mitigation Scenario" Checklist) for scope of IEE, identification of impacts and development of environmental management plan.

	Activity	Status		Detailed Comments and Further Actions Required
				<p>Strengthening Distribution System for Implementing 24x7 Water Supply to Mangalore City Corporation proposed under the tranche-2.</p> <p>Based on the project activities, the identified impacts are mitigated through suitable management measures that have been suggested in the EMP for various stages of the project viz. Design stage, Pre-construction stage, Construction stage and Operation stage.</p> <p>This IEE is updated and submitted for review during validation of detailed design by contractor.</p>
2.	Environmental assessment based on latest project components and design	Yes	No	<p>The updated IEE is based on latest project components and design. The Final IEE will be prepared based on complete on-ground design validation survey for proposed subproject components.</p> <p>Action required: The design validation is still under process and some variation may come in design which may require one more update in IEE.</p>
		x		
3.	Statutory Requirements ²⁰		Forest Clearance	Not applicable , as per IEE there is no reserved forest / protected forest or environmental sensitive areas within or in the vicinity of the project area.
		x	No Objection Certificate	<p>Action required:</p> <p>The alignment proposed for the subproject is passing through various urban and rural roads and crossing rail</p>

²⁰ If applicable, include date accomplished or obtained.

	Activity	Status	Detailed Comments and Further Actions Required
			<p>lines, for pipe laying contractor required following permission</p> <ul style="list-style-type: none"> The road cutting permission from PWD, <p>Sections requiring National Highway permissions:</p> <p>(viii) Clear water feeder line crosses NH-66 (350 mm diameter DI) at Pump well Circle for length of 60 m;</p> <p>(ix) Clear water feeder line (610 mm diameter MS pipe) crosses NH-66 at Paduva High school for 45 m. Also, same pipe line passes along NH-66 for a length of 350 m;</p> <p>(x) Clear water feeder line (250 mm diameter DI) pipe crosses NH-66 at Panambur beach road for 45 m. Also, for a length of 500 m pipe line passes along NH-66;</p> <p>(xi) Clear water feeder line (200 mm diameter DI) pipe crosses NH-66 at NITK for a length of 45 m;</p> <p>(xii) Clear water feeder line (355.60 diameter MS pipe) passes along NH-66 from Panambur to Kulai for a length of 4 km;</p> <p>(xiii) Clear water feeder line (300 mm diameter DI pipe) passes along NH-169 from Kongurmutt to Baiturli Junction for a length of 1.4 km; and</p> <p>(xiv) Clear water feeder line (200 mm diameter DI) pipe passes along NH-169 from Mangalajyoti Junction to Vamanjoor Check post for a length of 1.8 km.</p> <p>Sections requiring railway permissions:</p> <p>(iv) A clear water feeder line (660 mm diameter MS pipe) crosses Konkan Railway line at Kana in between chainage 735/700-</p>

	Activity	Status		Detailed Comments and Further Actions Required
				<p>800; (v) A clear water feeder line (355 diameter MS pipe) crosses railway line at Baikampady in between chainage 24/400-500; and (vi) For laying 350 mm diameter DI pipe at chainage 883/4.</p> <p>Along with the applicable clearance for the subproject. The Contractor should obtain the NoC from the private land owners for the temporary storage of construction materials/ construction camp.</p> <p>The Contractor is also required to obtain: (i) Labour license from Labour department for the construction labours. (ii) PUC certificate from for the construction vehicles</p>
			Site Location Clearance	<p><u>Action required:</u> Contractor to prepare and include in SEMP the following:</p> <ul style="list-style-type: none"> • A road closure and traffic diversion plan for pipe laying on roads • Site clearance plan, including identified locations for disposal of excavated extra earth material and C&D waste. • Table containing dia of pipe, width of road and ownership for road cutting permission to be updated in IEE and NOC status to be updated in progress reports
			Environmental Compliance Certificate	<p>Not applicable, the components are not listed in the Schedule 1 of the EIA Notification Act and its</p>

	Activity	Status		Detailed Comments and Further Actions Required
				rules and regulations.
		x	Permit to Construct (or equivalent)	Under Water (Prevention and Control of Pollution) Act of 1974, Rules of 1975, and amendments, the components of Water Supply projects in Karnataka are exempted from taking CTE and CTO from Pollution Control board. Action required: Under Air (Prevention and Control of Pollution) Act of 1981, Rules of 1982 and amendments, the CTE and CTO from KSPCB is required for (i) Batch mixing plant, DG set. If contractor is procuring from third party, contractor has to ensure that third party is having CTE/CTO from KSPCB and Contractor to collect the copy of these and submit to PIU for approval. CTE to be obtained prior to start of construction and CTO to be obtained prior to commissioning. CTO renewal to be undertaken during operations stage.
		x	Permit to Operate (or equivalent)	
		x	Others	<p>The NITK OHT and its network is falling under the CRZ area (detailed design for this area is pending), requires prior permission from Karnataka Coastal Zone Management Authority. Any project component within 300m from Mangaladevi Temple Sultan Battery (both are ASI protected monuments) requires prior permission of the National</p>

	Activity	Status			Detailed Comments and Further Actions Required		
					Monument Authority (NMA) through jurisdictional Archeological Survey of India. No other environmental related clearance or permissions required		
5.	Policy, legal, and administrative framework	Adequate		Not Adequate	The updated IEE includes discussions on applicable policy, acts and rules. Obtaining the required permits and NOC is the responsibility of PMU/PIU. The updated IEE also confirmed that international best practices (specified in EHS Guidelines) have been incorporated in the preliminary design. Further action/s: Any condition in the permits/NOC will be incorporated in the final IEE and contractor SEMP. PMU to include in final IEE justification if (i) lesser stringent standards or lesser performance levels as per EHS Guideline will be followed in the detailed engineering design; (ii) operator will consider other standards/indicators not consistent with the cleared EMP.		
		x					
		Included discussions and requirements of the:					
		X	National regulation/law on EIA				
		X	Environmental agency				
		X	Relevant international environmental agreements				
x	Environmental standards (IFC's EHS Guidelines)						
6.	Anticipated environmental impacts and mitigation measures	assessed impacts and risks:		mitigation measures included:		Contractor has already prepared and submitted site specific H&S plan including guidelines for COVID -19 to PMU and, PMU to report same in SEMRs.	
				Yes	No		n/a
			Biodiversity conservation			x	Not applicable: As per IEE there is no protected forest area near proposed project area.
			Pollution prevention and	X			Based on the predicted impacts from the proposed

	Activity	Status				Detailed Comments and Further Actions Required
			abatement			<p>water supply subproject construction activities, suitable EMP (including pollution prevention and abatement measures) for various stages of the project viz. Design stage, Pre-construction stage, Construction stage and Operation stage has been prepared to mitigate significant environmental impacts.</p> <p>The total cost to implement EMP for water supply system is ₹4,174,000.</p> <p>Google map of identified sample monitoring sites are also updated in IEE.</p> <p>Action Required: The Updated/Final IEE and SEMP should provide specific information on how contractors integrated the requirements in the EMPs to detailed engineering design.</p>
			Health and safety	X		<p>A section on Occupational Health and Safety is included in the IEE, which covers site-specific occupational health and safety plan, use of personal protective equipment's (PPE's), OH &S Training, International Standards such as the World Bank Group's Environment, Health and Safety Guidelines etc.</p> <p>Action Required: The Updated/Final IEE and SEMP should provide specific information on (i) how contractor will implement occupational health and safety; (ii) contractor to confirm</p>

	Activity	Status					Detailed Comments and Further Actions Required
							appointment/delegation of Site Health and Safety Officer; and (iii) include contractor's Healthy and Safety Plan.
			Physical cultural resources			X	Any project component within 300m from Mangaladevi Temple and Sultan Battery requires prior permission of the National Monument Authority (NMA) through jurisdictional Archeological Survey of India. Alignment passes along the existing roads. The temple and the underground pipeline alignment is separated by houses and buildings, similarly for Sultan Battery, therefore there is no interference or impact on the monument. Action Required: a training to be given to contractor for chance find and action to ensure its removal or protection in situ in case of any new finding.
			Cumulative impacts			x	The proposed subproject is to provide 24x7 water supply at a rate of 135 LPCD at consumer end, it will have a positive impact among the community. However, the same subproject will lead to the generation of wastewater/ sewage, which will be take care by sewerage system of adequate capacity including treatment is being implemented under the KIUWMIP.
			Transboundary impacts			x	Not applicable. The subproject/package is relatively small-scale in nature to have potential Trans boundary impacts

	Activity	Status			Detailed Comments and Further Actions Required
		Addressed	Not Addressed	Not applicable	
7.	Impacts from Associated Facilities ²¹			x	Not applicable. There are no associated facilities under this subproject/package.
8.	Analysis of Alternatives	Yes x	No		Not applicable , this is a Category "B" Project. Due to the constraints in the availability of land, only feasible alignment is chosen for the subproject
9.	EMP budget included	Yes x	No		The indicative cost of EMP for Package is INR ₹4,174,000. The bid documents include BOQ item for items related to EMP implementation.
10.	EMP implementation integrated in FAM/PAM and bid documents	Yes x	No		(i) The draft Project Administration Manual included sections on environmental safeguards. Information in the PAM has been considered in the preparation of the draft IEE. (ii) The EARF also provided detailed requirements on EMP implementation. These are included in the draft IEE. (iii) The draft IEE (cleared by ADB) was included in the contract documents and was provided to the contractor.
11.	Consultation and Participation	Yes x	No		Public consultations were carried out by the ULB engineers, Resettlement Specialist and design engineer of the consultant team from 10 October 2016 along the clear water pumping lines and from 1 to 10 July 2016 along the busy areas (commercial centers and narrow streets) of in subproject

²¹ ADB SPS (Appendix 1 para 6) defines associated facilities as not funded as part of the project (funding may be provided separately by the borrower/client or by third parties), and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project.

	Activity	Status		Detailed Comments and Further Actions Required
				city. Meetings and consultations with relevant government departments were carried out to assess the project approach. In September 2018 consultation was again carried out in Nandigudda and Mulilith area of Mangalore. During consultations KUIWMIP EE Mr, Suraj explained the pumping main and water supply project, the inconvenience during the work to the public and requested support and suggestions from the public for the project.
12.	Grievance Redress Mechanism	Yes	No	As per the IEE, grievance redress mechanism (GRM) for the subproject has been established in accordance with an official Memorandum issued upon the order of Joint Managing Director KUIDFC Official Memorandum dated 28 June 2017. The GRC for the project is headed by (a) Special Land Acquisition Officer/Assistant Commissioner of the concerned sub-Division as Chairman of the sub Division with members as follows: (i) ULB Commissioners/Chief Officer of the concerned ULB towns, (ii) Deputy Project Director as member Secretary and Convener, (iii) PMDCSC Engineer, (iv) Affected Community member/NGO, and (v) Safeguards Officer RPMU KIUWMIP Mangalore member and will shoulder responsibility of keeping records of grievances/ complaints in
		x		
		Description of GRM:		
		GRC members identified:		

	Activity	Status		Detailed Comments and Further Actions Required
				details Action Required: Update the contact details for GRM
		GRM established and notified?		
		Yes		Office order included in Appendix 17 Updated Draft IEE
13.	Disclosure		Endorsement to disclose on ADB website	The Draft IEE was already disclosed on web. The Final IEE to be disclosed on ADB web after fulfilling the requirements of the SPS, 2009
			Disclosed on project website	Upon endorsement, the updated IEE shall be disclosed on project website
			Relevant information available to stakeholders and affected people in language and form they understand.	The stakeholder's consultation and subsequent press release has helped the project information to reach the local people to some extent. However, upon disclosing the safeguard documents, the project relevant information shall be better understood by the local people
14.	Mobilized PMU Environment Specialist	Yes	No	Mr. Shashisekhar SP, PMU – KUIDFC, Environmental expert
		X		
15.	Mobilized PIU Environment Specialist	Yes	No	Mr. Mr. Shiva Kumar Assistant Executive Engineer, PIU, Mangalore In-charge Environment safeguard compliance
		X		
16.	Mobilized Environment Specialist at PMU level	Yes	No	Mr Kiran Surya, PMSCS Environment Specialist
		X		
17.	Mobilized Environment Specialist at PIU level	Yes	No	
		X		
18.	Confirm bid and contract documents and/or EMP include requirement for the contractor to appoint EHS supervisor and/or	Yes	No	
		x		

	Activity	Status		Detailed Comments and Further Actions Required
	nodal person for environment safeguards			
19.	If contract awarded already, confirm contractor's appointment of EHS supervisor and/or nodal person for environmental safeguards	Yes	No	
		X		Mr. Mr. Sanoop Veetil – SIPL, SPPL– SIPL, DRS Infra Tech
20.	Awareness training on compliance to safeguard requirements	Yes	No	
		x		Table 22 of IEE Outlines the details of training and capacity building program on EMP Implementation The training/ workshop to be conducted by the environmental safeguard's specialists of PMU/PIU.
21.	Monitoring and Reporting	Yes	No	
		x		Detailed in the EARF and the Draft IEE.
22.	Others/Remarks	<ul style="list-style-type: none"> Provide status of design validation survey and cutoff date for submission of final IEE 		
	Prepared by: <i>(name, designation and date)</i>	Govind Singh Rathore, July 07, 2021		
	Noted and Checked By: <i>(name, designation and date)</i>			
	Documents/References:	1. The Draft IEE of May 2018 2. Updated Draft IEE of March 2021		